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AA
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67
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QUALITY

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Editorial

I have been thinking about Amiga's future after speaking with all sorts of people. Obviously, as owners of Amiga equipment we all have reason to be concerned with its future. Will there be support, service and more importantly, something to upgrade to, are all things which come to mind.



Are IBM compatibles serious competition for the Amiga? PCs are cheaper than they were, and they seem to be having an impact as a home machine, but if you're looking for a machine which is a lot of fun, performs essential tasks to help justify the purchase - such as wordprocessing, and could also double as the best games computer in town, then there is no doubt you should purchase an Amiga.

If you would like to use your computer for desktop video, music, animation or programming, once again, the Amiga wins hands down. An IBM compatible is simply no competition by the time you add the necessary bits to bring it in line with an Amiga in these applications.

Furthermore, Amiga software is much less expensive than MS-DOS equivalents - a strange thing considering the MS-DOS market is many times larger.

However, it's the "can I bring my work home", "will it run IBM software" and "surely I need a real computer" consumers who are being easily coerced into going the PC way. Indeed, some of the aforementioned buyers are also going PC on the basis of price. This could turn out to be a nasty mistake.

It would not take much to show these people all the good an Amiga can do, like read/write and format MS-DOS 720K disks with a \$5 public domain program, run programs as good as most of the MS-DOS packages around and generally provide a platform for family enjoyment way beyond the realms of information processing. However three things are in the way. These people don't know about the Amiga, they are convinced they need IBM compatibility (although the Amiga can provide this) and at this time the Amiga is not price competitive.

The United States market is now dominated by the PC, but there is still a strong Amiga following even there. And of course, there's always Europe. Some 85% of all Amigas are sold there, and the home market is well and truly sewn up by Commodore. I am not concerned that the Amiga will be gobbled up by the upside down pyramid of MS-DOS and the patch-work architecture which is IBM compatibility. It's just a shame some people will end up with PC's - which might offer more sophisticated business software, a good choice of games (if they work with your chosen mouse and sound card) - but at the end of the day are not as much fun to use. And we all know that Windows is just no match for Workbench 2.0 - so why worry?

Andrew Farrell

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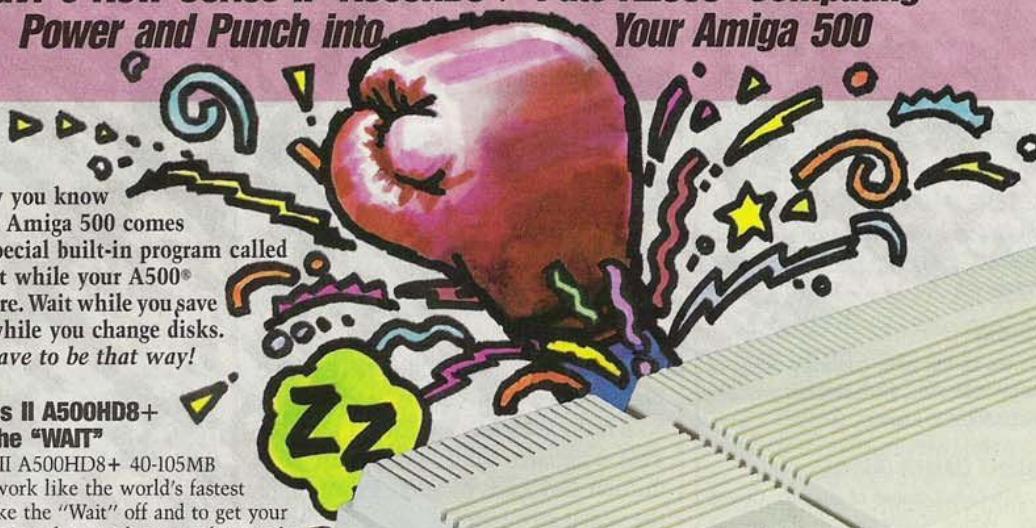
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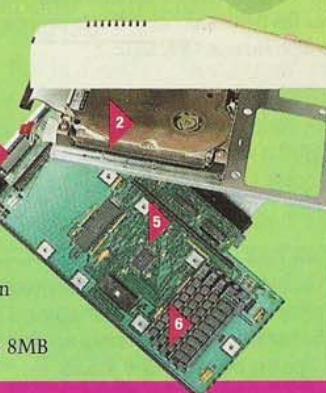
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Ram Rumbles

Commodore Doing Fine!

For those interested in the future of their investment, here's a few facts on Commodore and the computer industry in general.

Commodore International Limited has reported first quarter earnings of \$5.3 million on sales of \$204.1 million. This compares with earnings of \$7.0 million and sales of \$200.3 million in the year-ago quarter.

Unit sales of the C64 line increased a total of six percent and unit sales of the Amiga line increased 40% for a total increase in net sales for the quarter of two percent. The decline in gross profit for the quarter as compared to the year-ago quarter was attributed entirely to foreign currency fluctuations. Operating expenses were reduced by nine percent versus the prior year.

Revenues exceeded \$1 billion on four consecutive profitable quarters. Commodore is now second in personal computers sold in Europe last year (behind IBM). Amiga unit volume increased 38 percent with sales increasing 23 percent.

PC clone revenues rose 14 percent. C64 unit growth rose 16 percent with sales increasing 4 percent, mostly on sales in East Germany and Eastern Europe. All major European markets experienced strong sales growth.

Commodore plans to offer a wide range of CDTV accessory products in fiscal 1992, including keyboard, genlock, and storage and networking devices. In addition, Commodore plans to introduce a new video card that will substantially enhance the colour capability of CDTV to over 4 million colours.

The Amiga line accounted for 55% of net sales in 1991 (53% in 1990; 45% in 1989). The Amiga 500 contributed to the majority of sales.

The PC line accounted for 28% of net sales during 1991 (29% in 1990; 24% in 1989). Unit sales were down 3% in 1991 but revenues increased 14%.

The C64 line accounted for 16% of revenues in 1991 (18% in 1990; 31% in 1989).

CDTV sales were nominal due to its release late in the fiscal year.

Market Share

	1991	1990	1989
Europe	84%	75%	69%
North America	11%	18%	24%
Asia/Australia	5%	7%	7%
Total European PC Market = 7,469,500			
(SOURCE: Dataquest 4/91)			
OTHER	51.3%		
IBM	14.6%		
COMMODORE	11.8%		
(Last year CBM had 9.5%)			
OLIVETTI	6.7%		
APPLE	6.0%		
COMPAQ	5.7%		
AMSTRAD	3.9%		

Amiga at Work

* In Boston, Logan International Airport is upgrading its tourist information service with an Amiga 3000 system offering full motion videos, still frames of maps, pictures and illustrations, and weather and traffic updates.

* In Europe, similar Amiga 2000 and 3000 systems are already in use in Sweden at Scandinavian Airlines Systems headquarters and at Arlanda Airport in Stockholm.

* At Le Printemps, one of Paris' largest department stores, an Amiga 3000 display presents choices in the selection of wedding gifts.

* Amiga-generated titling, graphics and animation highlighted the 1990 World Equestrian Games in Stockholm, the 1991 International Ice Hockey Championship in Finland, and the 1991 European Soccer Championship in Poland.

* Commodore recently won a major PC contract in Belgium to supply the National Railways, in addition to a major project for Kreditbank.

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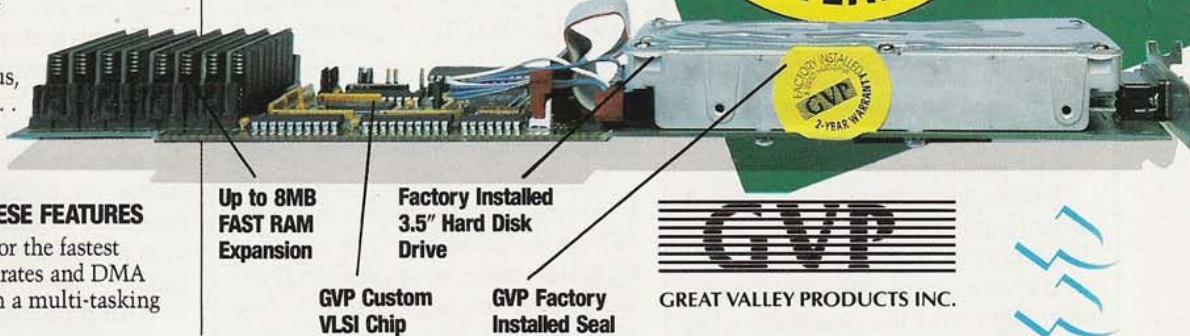
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Notepad Notepad Notepad

Special Report: Amiga Laptop Dream or Drawing Board

In recent times, there has been a bit of discussion about a possible Amiga laptop and of what happened to the German third party laptop shown in CeBitt so long ago. A German company called GigaTron said, back in 1988, that they were working on an Amiga laptop. In 1989 it was reported that GigaTron had shown two models at CeBitt Fair in Munich; one with a gas-plasma display and one with an LCD display - both 16 shade monochrome.

The company announced that the displays were capable of rendering every Amiga screen, though HAM wasn't the best and neither was half-brite. They stated that the screens were developed with the direct assistance of Commodore UK, who had expressed utter amazement that anyone other than CBM could make an Amiga motherboard.

The price was set at around \$3500 for the LCD model and \$4000 for the gas-plasma. Nothing further came out for over a year. The machine was a 68000 based but with two special slots, one for a modem or fax/modem and one for an accelerator.

Finally, a major publication printed in its rumours column that Commodore had killed the project with threatened lawsuits over the motherboard - they didn't want the competition. No confirmation of this has ever been obtained, and that is where it stands today.

Feasibility

Is a laptop Amiga feasible? Well, everyone else has one; IBM, Apple (which is reported to have three more in the works - one pen based), and Atari (which is reported to have two more in the works - one pen based) all have working laptops. Commodore makes a notebook 286 PC with a 386 in the final stages of testing. Why no Amiga?

Well, the Macintosh is basically a monochrome system, so there is no conflict since colour is an add-on. MS-DOS machines have numerous monochrome setups, the most prolific being Hercules and VGA mono. The Atari has a couple of monochrome settings, too - so that really isn't a problem. The Amiga, on the other hand, has no basic monochrome setting (except for the dual-paged A2024 display for DTP). The Amiga touts colour and animation as major features. Can you see a monochrome Amiga? Yes, if you look hard enough.

Display Possibilities

The Amiga does have support for some super-hires monochrome screens (Viking & A2024 monitors) aimed at DTP. How many are out there and how many programs support them? Not many programs other than DTP itself support mono Amiga. High persistence phosphors and matrix displays

make animation impossible. Other modes are best used with colour - or are they?

The newest Amiga operating system, release 2.04, comes with the A3000 and has default colours in the grey scale. The 3-D embossed look is great and easily obtainable with a grey scale palette. Is this a "buffer" step, to ease the transition to possible monochrome Amigas?

The newest manual, the Amiga User Interface Style Guild stresses the ability of programs to look good on monochrome screens. What is Commodore up to?

Is monochrome necessary for a laptop?

Current colour LT technology is getting better. There are both VGA color (16 colours on a 640 x 480 screen) and better (4096 at once) currently available in quantity. Even better screens (one touted in a major PC publication as equal to or better than a regular monitor) are on the way. The barrier is price. Screen with case start at about US\$2500, not including computer - and that is rock bottom (in quantity, too). Expect to pay between \$3500 and \$4500 rock bottom for a colour Amiga LT (68000 based) with 16 color hires. Prices of \$4500 to \$5500 for full colour Amigas would be the norm. Expect introductory and list prices to be about \$1000 above those numbers - if one were produced in today's market.

Is colour necessary?

All laptops I have seen include an external monitor plug. I cannot see doing colour-intense art on a laptop. I can see finalising a multimedia script using *The Director* or *AmigaVision*, word processing, recalculating a spreadsheet, etc. while on a plane/train/automobile. Artwork is so time consuming that trying to cram it in on the plane before the big meeting is asking for trouble. A monochrome Amiga LT would be useful, and darned right powerful with an external video jack.

What processor?

Not the 68000, that's for sure. An Amiga LT should include a 16 MHz 68030/68881 combination to ensure

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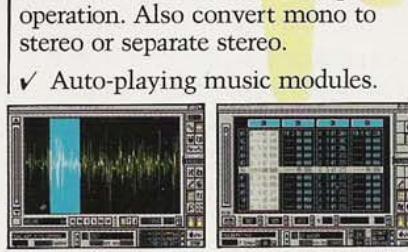
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- ✓ Multi-tasking operation.
- ✓ 68020 and 68030 compatible.
- ✓ Comprehensive tutorial manual helps even beginners get started right away.
- ✓ Intuition-based graphic interface makes operation easy.
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- ✓ Direct interface between sequencer and editor.
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✓ Direct editing of individual sample numeric values.

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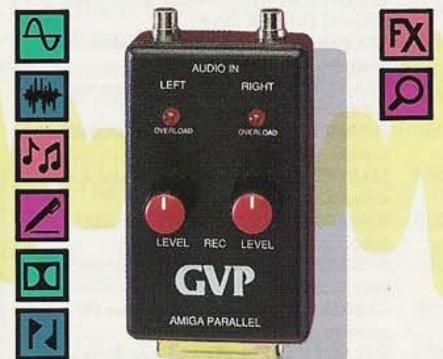
✓ Savable Preference settings.

✓ Saves in IFF, SONIX or RAW formats.

✓ Compatible with SoundTracker, NoiseTracker and SoundFX modules.

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- U210 ICON DISK Icon designers & over 220 sample icons. All you need.
- B101 AMIBASE Good budget priced database. Easy to use.
- B102 CLERK & BANK'N Two of the best PD accounts & chequebook programs.
- D003 IMPACT DEMOS 5 Demos from Europe. Great graphics & sound.
- E001 TALKING COLOUR BOOK Draw and colour in. Great for kids.

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that it can run Unix V.4. The 030 would be better than the 020 because Unix requires a PMMU which is built into the 030 and separate with the 020 (68851 to be exact). Price may be a bit higher, but power consumption would be much better. CMOS is necessary in order to lengthen the battery life.

Ideal machine?

My ideal (but realistic) Amiga LT would consist of the following:

A 16 MHz 68030/68881 based machine shipped with 1 Mb chip RAM (DIPs for second meg) and 1 Mb fast RAM (with inline ZIP sockets for up to 16 Mb of fast RAM -- same as the A3000). I don't consider a built-in floppy necessary (I almost NEVER use mine on my A2000), so an external connector would be fine.

A choice of 40/60/80 meg hard drive

(2+) built-in is mandatory. A choice of paper-white VGA screen or colour for the rich people and fanatics. VGA, small parallel, SCSI and audio out (Y-split necessary for stereo) on the back.

A dedicated socket for a modem card and a single Zorro II slot. The keyboard should be based off of the Mac Portable or the IBM LT with a side jack for an external keyboard. A single joy/mouse port and clock.

Bring it in under five pounds (so I'm dreaming) and a battery life no shorter than three hours, two with intense hard disk activity. Price it at \$3000 for the 40 Mb mono and \$4500 for the 40 Mb colour (list). Modem card for \$99, fax/modem for \$199.

Hopefully Commodore will look favourably on the idea of a laptop Amiga, or at least encourage a third party to develop one.

support for displaying the text, graphics, margin guides, headers and footers.

There's now internal font support for some 140 printers, with special on-screen WYSIWYG version of all fonts. For fast typists there's a new quick-screen mode.

Picture scaling has been improved and there's now support for colour NLQ printing. All in all, a very worthwhile upgrade. All it needs now is footnotes! For more information call Pactronics on (02) 748 4700.

ProWrite 3.2

Another major upgrade to a popular wordprocessor is the release of *ProWrite* 3.2. The new version includes full in-built Postscript support, jaggie-free dot-matrix output and a whole new look to the program. The options requestor now enables full control over screen colours, with colour support for graphics also improved considerably. *ProWrite* now has a handy speak option - either as you type or a whole document.

ProWrite claims to import and export Professional Page Text - part of the new improved file requester. For paranoid typists, there's now an auto-save option which will save your document every so

WordWorth 1.1

As predicted, *WordWorth* is receiving continued support from the publishers, Digita International. Version 1.1 will ship soon with a number of major improvements including a full Postscript driver for the standard 35 Adobe fonts with accurate on-screen representation.

Page Preview has been added, with

TechnoSound Turbo

Upgraded version of New Dimensions' acclaimed hardware and software stereo sound sampler. Simply plug your sound source into the unit and fire up the sampling software. New multi-tasking software features a MIDI sequencer, and a host of exciting special effects including real-time echo, phasing, pitch shifting and other voice synth effects. "...no-nonsense, low-cost, easy-to-use system..." 81%, Amiga Format, September 1991

\$79

2 Meg for A500

The 'V2000' expansion from U.K. manufacturer Virgo Developments contains a real time clock/calendar and up to 2 MB of auto-configuring Ram. The board plugs into the trapdoor expansion bay and connects to an internally fitted Gary adapter.

Unpopulated (0 Megabytes)	\$140
Populated to 0.5 Megabytes	\$178
Populated to 1.0 Megabytes	\$218
Populated to 1.5 Megabytes	\$258
Populated to 2.0 Megabytes	\$298

4 Meg for A500

The 'V4000' system is similar to the 2 Meg. system described above, with additional sockets allowing up to 4 MB of expansion RAM.

Unpopulated (0 Megabytes)	\$220
Populated to 1.0 Megabytes	\$299
Populated to 2.0 Megabytes	\$379
Populated to 3.0 Megabytes	\$458
Fully populated (4 Megabytes)	\$539

Both the 2 meg. and 4 meg. boards leave the main expansion bus free (e.g. for a hard drive).

Also from Virgo Developments:
3.5" External Disk Drive

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Cortex A500/A1000 8 Meg Expansions

- Fit to expansion bus: warranty remains intact
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- Fully operational bus pass-through
- Uses standard 1M x 8bit or 1M x 9bit SIMMS
- Designed with A1000 compatibility in mind
- Zero wait states
- RAM test software

0 meg.	\$425
2 meg.	\$580
4 meg.	\$734
6 meg.	\$888
8 meg.	\$1042

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7 disks full of the best Brain Taxing Games
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Kaotic Klip-Art
10 disk compilation
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Kaotic Koncepts Kaos Komplilation
7 disks of stunning Mandelbrot and Julia sets
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Kaotic Icon Laboratory
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Iconj	Iconmaster	Iconlab
Iconizer	Xicon	I.E.
Iconed	Image-Ed	Ifficon
Smarticon	Icon Maker	Iconmk

P.D. Software Paks

Kaotic Koncepts supports the intentions of public domain authors; namely to allow wide distribution of software with minimal copying charges. All Pak prices include postage and handling. These disks plus FISH and many more are available individually for \$2.50 plus \$3.50 P&P for any size order. Catalogue disks \$2.50 including postage. All disks supplied are Nashua brand. Blank disks \$15 per box of 10. Nashua disk boxes (hold 90 3.5" disks) \$17.00

Kaotic Arcade Parlour Paks: 5 disk Paks of arcade action
\$12 per Pak

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Megaball, Missile Command, Sball, Dragoncave, Car, 7-Tiles, Grid-Runner, Rebound, Invaders, Miniblast.

Kaotic Arcade Pak 2

Sys, Slotcars, Tron, Cat & Mouse, Shark, Galactic, Worm, Ball, Moonbase, Mirrorwars, Stenischlag, Running, Drip, Spacewar, Cosmo2, Flaschbeit, Blizzard.

Kaotic Arcade Pak 3

Pacman-87, Girl-Action, Hemroids, ST-Bash, Grav Attack, Eat Mine, Hovertank, Humartia, Triclops Invasion.

Kaotic Label Laboratory

2 disk set containing: Labelbase3, RLC210, Diskprint, SuperRetLab plus ready made labels.

\$6

Kaotic Font Theme

3 disk set containing fonts and font utilities.

\$8

many minutes provided you've stopped typing. If you haven't, ProWrite waits until you have. Clever stuff! For more information call Computermate on (02) 457 8388.

BYTE Magazine likes A3000UX

A few quotes from a review of the Amiga Unix machine, from Byte Magazine: "...The Amiga 3000UX greatly outperforms the equivalent NeXT and Mac with A/UX... it is much more suited to handling the graphics requirements of a graphical user interface like Open Look..."

MegaMicro Technology

Norm Jackson, long respected as a fine engineer/product designer for the Amiga market (he designed the MicroMega and Tiny Tiger for MAST, among other things), has released a product which he will market directly, called the SCRAM 500, a SCSI RAM controller for the A500.

According to his press release, its specifications include: tiny footprint; 0 to 8 megabytes of fast RAM with 1meg or 4meg chips supported; Ram configurable as 2, 4 or 8 Meg; Full, fast SCSI hardware and software - Syquest, tape and CD-ROM compatible and an accelerator upgrade path.

Sounds very good! This could be the way to make your A500 zoom at low cost - \$349 with no RAM, \$499 with 2 megabytes fitted. For more information, send SAE to: MegaMicro Technology, P O Box 511, Bondi Junction, 2022 or Fax: (02) 363 1246

Phoenix Update

An A-Max II hard disk driver for the Phoenix Board is now available, allowing A-Max to use a partition on the Phoenix Board's hard disk as a bootable Macintosh disk. The driver will be sold separately and also bundled with A-Max II.

The Phoenix Board SCSI driver now supports Commodore's SCSI-Direct pro-

tocol, which allows software to talk to any SCSI device (such as a tape drive, scanner etc) in a manner compatible with most SCSI controllers on the market. All current controllers from Commodore, GVP, MicroBotics, IVS etc. support the SCSI-Direct protocol. More information and programming assistance is available from Michael Warmer.

Revision F upgrade now available to the SCSI controller - over 50% faster, and some bugs fixed. You can get a kit consisting of EPROM and disk for \$25.

Tape Backup: Michael Warmer and Jon Potter are collaborating to produce a hard disk backup utility which will support SCSI streaming tape drives and floppy disk backup a la Quarterback. This utility will work with the Phoenix Board as well as most other SCSI controllers on the market. A demo version will be made available as soon as possible. Phoenix would like to hear from anyone with access to a SCSI tape drive interested in beta-testing the utility. Your name will go up in pixels! The Canon MO drive (see below) may also be supported.

Phoenix are considering development of support software for Canon's erasable Magneto-Optical SCSI drive, as used in the Next workstation.

Two Kickstarts on a Board

If you're trying to keep things compatible, Unitech Electronics P/L have a neat little bit of hardware called the KickBoard. It handles two Kickstarts on one board, making it easy to switch between the two. Will it work with Workbench 2.0? We'll wait and see - but it would certainly be worth having as there is the odd game or two which doesn't like 2.0. For more information telephone (02) 820 3555 or write to 8B Tummel Place, St Andrews.

Piranha Graphics

Simon Hart sent us in a letter with a very good-looking logo, and the following text: "Programmers: Need graphics, sound samples or music for any type of program or game? Call Piranha Graphics - we pride ourselves on producing

maximum quality work for low prices. Call Simon Hart on (03) 789 6544 for information or to ask about our demo disk." Address: 5 Ballymore Crt, Frankston, VIC 33199.

Desktop Publishing Bureau

Desktop Utilities is an Amiga-based Postscript output and file transfer bureau. Files can be sent on disk, or uploaded in Postscript ASCII or certain document formats from any system to be printed at 300 dots per inch. They can read disks in Amiga, IBM (360 & 720K), Mac (800K) and Atari ST formats, and transfer files between formats on 3.5" or 5.25" disks.

Desktop Utilities operate a Bulletin Board and message line which are available most hours, seven days a week.

There is also a scanning service using Sharp scanners. For more information telephone (062) 396658 or Modem (062) 396659.

Digital Film Recorder Bureau

David Jacobs is accepting images for outputting on a Digital Film Recorder, which is basically *Digiview* in reverse. The Film Recorder separates an image into its Red, Green and Blue components and displays each component onto a high resolution black and white monitor. The exposure is taken by a camera through corresponding Red, Green and Blue filters.

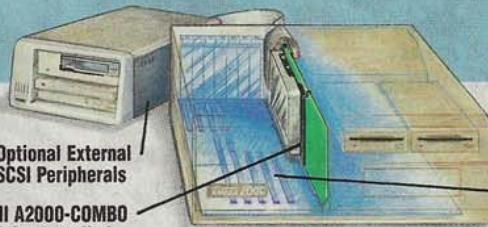
This produces results that are free of the phosphor dot texture of normal colour monitors as well as giving better colour reproduction. David is also able to remove the dark raster lines that are visible in non-interlaced images.

For a sample slide, send \$1.00 and a SASE (Self Addressed Stamped Envelope) or for \$3.50 and a SASE. David will output one of your images as a sample. All Amiga display modes are supported including HAM, Overscan and Dynamic-Hires. In the near future, he hopes to offer full 24-bit (16.7 million colours) output. Creations, 120 McGilvray Avenue, Noranda, WA 6062. If you have any queries on the

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1MB (22MHz) or 4MB (33MHz) Surface-mounted 32-bit wide Memory

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output service, call David Jacobs on (09) 276-7850 between 8am and 5pm (Perth Time), Monday to Friday only.

Rexx Plus Compiler

For US\$150, you get a Compiler which the distributors claim gives greater speed, more built-in functions, better error messages and greater efficiency, in that the compiler generates re-entrant code. However, "Rexx" not "ARexx" is mentioned, and I've never heard of this company before, and there were two spelling mistakes in a short ad... so beware. More info from: Dineen Edwards Group, 19785 West Twelve Mile Rd, Suite 305, Southfield, Michigan 48076-2553. Tel: 313 352 4288.

RxTools

While on the subject of ARexx, this US\$55 program lets you easily design and build user interfaces into ARexx programs, linking the ARexx text interface to Amiga's Intuition interface - RxTools lets you handle Intuition manageably, giving you windows, gadgets, requestors, and more with minor pain. For more info: TTR Development, Inc., 6701 Seybold Rd, Suite 220, Madison, WI 53719. Tel: 608 277 8071.

Fractal Engine

With mainly games in mind, Psygnosis has shown this inventive new approach to programming - either the computer can recreate a fractal gaming world animation with some interactivity or a portion of the screen can be reserved for real-time fractal animation in full interactive mode. The hope is to merge both computer animation and real-time fractal technology into a quick interactive product. The technique could have quite widespread application in education as well as gaming. (See below for more on fractals.)

Schematic/PC Design packages

Centaur Software has shipped four new packages which are really two versions of a pair of complementary packages called *Pro-Net Personal* (US\$179.95) and *Pro-Board Personal* (US\$179.95). The first of these is the artwork generation half and is called an "intelligent, single line auto-router with high density capability", and has many features. The Professional versions of this pair cost US\$499.95 each and the basic difference is the post-processing capabilities, which are extensive.

For more information:

Centaur Software PO Box 4400, Redondo Beach, CA 90278. Tel: 213 5422226.

Art Department Modules

ASDG has released some new add-ons for their *Art Department Professional* image processing software.

Professional Conversion Pack - For US\$90, provides conversions for Targa, TIFF, and Rendition format 24-bit files, often used in high-end graphics workstations.

Polaroid CI-3000 Digital Palette for US\$4495 (!) which is a digital film recorder which guarantees accuracy to 24 bits, with an image resolution of 2048 x 1638 pixels. Provides camera backs for 35mm and Pack film; autofilm and 4x5 camera backs are also available.

The Polaroid CI-3000 Driver gives complete control over the beast from within ADPro, meaning that anything you can load into ADPro can be dumped to film in the CI-3000. So if you've got money, and need good images, this is the way.

South African Amiga Magazine

Peter Mazurek sent in a magazine called "AmigaSA" which he picked up on a trip round the Horn, mainly because it's the first mag he's come across which is bi-lingual, having mainly English articles but breaking into Afrikaans without warning from time to time, very

odd. Looks like we're well served for magazines here in comparison.

New Music Software from Blue Ribbon

Three new products have been announced from Blue Ribbon SoundWorks, the guys who brought us *Bars and Pipes*.

JAM! - Seems to be an imminent MIDI sequencer/music program for the rest of us, ie easy to use. It allows more than four sampled sounds at a time, mixes samples on the fly, includes a TurboSound editor, which means you can edit IFF samples to use with *Jam!* *Jam!* can be run together with *Bars and Pipes Professional*. Look for release in Australia early '92.

Bars and Pipes Professional now supports Sunrise Industries' sampling cards thanks to a new tool letting you access Studio 16 sampling. Each Sunrise sampling card will be released with the appropriate software. There's also a new Tutorial Kit which contains several tutorial lessons for *Bars and Pipes Pro*.

Pro Studio Kit is aimed at professional musicians and is an add on for *Bars and Pipes*. It contains an articulation modifier, DeFlam, DeGlitch, event smoother, Feels Good and a bunch of the things... (someone want to explain all about this to us?).

Finally, the Creativity Kit - (talk about spin-offs!) - Contains a bunch of extra tools such as Accent Randomiser, Auto Modulate, Riff-chord and others. For more information call Dataflow on (02) 331 6153.

New from Progressive Peripherals and Software

Diskmaster II - the old favourite is back, better than ever. I'm told it's very powerful and easily configurable. Watch for a full review soon - along with local competition, *Opus Professional*.

For video buffs, the *Video Blender* doesn't require TimeBase Correction, is configurable to PAL or NTSC and features include: 16 million colours; key-

Quality RapiSoft Public Domain

ing; key in; black burst; loop through; stereo audio mixing; luma keying; sequenceable; genlocking and more. Should be available early '92.

IntroCAD PLUS - the easy to use CAD package now has an accelerator version to speed up use on an accelerated Amiga, along with numerous other improved features.

Ultra Design - called a professional CAD system - the release indicates that this is a very powerful package. For more information call Computermate on (02) 457 8388.

Compuserve

Fujitsu has been bringing Compuserve to Australia since July this year, to "provide substantial cost savings and local support for Australian and NZ subscribers", as they say. If you're willing to pay serious money per minute you can get on to all kinds of useful databases and networks and services.

New ones include World Report (350 stories each day); Sports Report; and Community Report (European, that is). You can also, for example, get all the quality British newspapers online, and they just started a special forum on the Soviet crisis. More info from: Stuart Broad, Tel: (02) 410 4453.

Hayes makes HAY Legally

Hayes Microcomputer Products, Inc., which "owns" the Hayes Commands Patents, sued Everex Systems, Inc. over its use of them without permission and won the case and \$2.5 million damages on the 21st August. Juicy for Hayes - now others are being careful to pay royalties.

Westcomp Computers Moves

Lou Lucano, who runs "the largest shop and is the biggest Amiga dealer in the Central West of NSW" wants to let you know that Westcomp are now to be found at:

96 Bentinck St, Bathurst NSW 2795.

To celebrate one year of operation, RapiSoft is proud to announce three new Public Domain packs: *The RapiPack Vol #2*, *The Ultimate Games Pack Vol #2* and *The Dynamic Demo Pack*.

All packs contain loading instructions and have been extensively tested for viruses.

Prices include postage. Most orders are dispatched within 24 hours of receipt.

The Ultimate Games Pack Vol. #2

\$27

Following the success of our ever-popular Ultimate Games Pack, we are proud to announce another Games Pack. This pack contains eight disks full of Amiga Public Domain and Shareware Games. From action, strategy to role playing and trivia; there is something in this pack for everyone. Over 40 new games are crammed into the pack, some of which are: *BattleMech*, *Bullrun*, *Castle of Doom*, *Chess*, *Dtris*, *GridRunner*, *Invaders*, *Megaball*, *Rebound*, *Sky-Fight*, *TrekTrivia*, and many others! A small amount to pay compared to the amount of enjoyment you will get out of the pack. For only 68 cents a game, it's an offer not to miss!

The RapiPack Vol. #2

\$19

Ideal for both new Amiga users and veterans alike, the RapiPack makes an ideal Christmas present. Six disks full of quality software are contained in this easy-to-load pack, and full loading instructions are provided. The pack contains 2 disks full of games (*GridRunner*, *Invaders*, *Rebound*, *Moonbase*, *MirrorWars* and others), one disk packed with a variety of educational software, one disk containing a superb graphics and sound demonstration, and another containing a sound editor and sample sounds. Two utility disks contain a vast number of handy utilities which will make using the Amiga so much easier!

Dynamic Demo Pack

The Amiga's sound and graphics capabilities are unrivalled. This pack contains seven disks full of stunning sound and graphics demonstrations which will show off the inner power of your Amiga!

The demos included in the pack are:

- * Bartman Demo
- * Trilogy Mega
- * Crusader's Demo
- Demo (2-disk set)
- * Madonna Slideshow
- * Puggs in Space
- * Scoopex Mental Hangover

\$27

Other P.D. Packs

The Ultimate Games Pack Vol. #1

The Education Pack

The DTP (Desktop Publishing) Pack

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We have the complete range of *Amicus*, *Amigan* & *Fish* disks available, as well as DTP utilities, demos and GIF Pictures. All individual disks are only \$4 each

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- copies of The RapiPack Vol #2 @ \$19 each
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- copies of The Education Pack @ \$27 each
- copies of The DTP Pack @ \$27 each

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Entry Level Desktop Video The RocGen Plus Genlock

by Peter Ward

Not all that long ago, the number of genlocks available for the Amiga that would work with our PAL television standard could be counted on the fingers of one hand. Clearly things have improved since then as there is now a complete spectrum of PAL genlocks which would satisfy most users, whether a rank amateur video enthusiasts or broadcast quality production houses.

The RocGen Plus genlock will no doubt find a niche in the lower end of the market, if only due to its pricing (\$899). However, this genlock also has some attractive features which one normally associates with units in a significantly higher price bracket.

Documentation

The RocGen is shipped with a twelve page manual, demonstration disk and a handy titling software package, called "Home Titler". The manual, while not overly extensive, is sufficient to explain the installation and operation of the genlock. There is also a brief description of the Demo Disk and a "Question and Answer" section at the back of the manual. The only section where the

manual falls short is in the explanation of the KEY IN socket at the rear of the unit, but more on that later.

Software

The "Home Titler" software package is a surprisingly functional inclusion. The software is very similar to "PROTITLER" in both look and operation (though not as extensive). Titles can be easily created with effects such as multiple fonts, drop shadows, horizontal and vertical scrolling all being a mouse click (or two) away.

The package is very productive, with several pages of titles being easily created within a few minutes. Hopefully, bundled software is something we will see more of in future as hardware manufacturers seek ways to demonstrate the capabilities of their products.

More than happy with the goodies included with the RocGen, I then went on to examine the hardware in more detail.

The genlock case is of a sturdy metal construction, in an beige finish, which matches the Amiga colour scheme. There are two rotary dials on

the front cover, a Composite video IN, OUT, VIDEO THRU, KEY IN and RGB THRU connectors at the rear of the unit. These connectors are of the RCA type, and are common to most domestic VCR's.

There is also a "Video on" light on the front of the case, a feature many early genlocks lacked, which is very helpful in confirming the genlock is receiving a valid video input if or when you need to troubleshoot problems with your video set-up.

There is also a 12 volt DC power supply socket. Even though the RocGen can be powered from the RGB port of the Amiga, this addition would be of benefit to some users, such as taking the load off an already strained A500 power supply system.

Operation

After plugging the RocGen into the RGB port of an Amiga 2500, and connecting the monitor to the RGB through the connector, the unit was almost transparent in its operation. I found no major compatibility problems with the genlock attached in conjunction with the accelerator and hard disk boards within my system.

A slight bug occurred running *VistaPro* in the background, then moving a few workbench directories around, which resulted in a slightly scrambled control screen on returning to the *VistaPro* environment.

The RocGen is not alone here, as most genlocks attached to an '030 accelerated Amiga usually cause a weird artifact or two within the system with a genlock attached. The RocGen also takes a dislike to Hi-Res screens without external video being sent to the unit. The effect is a little like removing all the alternate scan lines on what would be a normal interlaced picture, and is visible on the RGB monitor and encoded video. Sending an external sync source to the genlock quickly fixed this problem.

There was one other snag. My initial use of the RocGen gave black and white output only!

I decided to open up the case to check if it wasn't something that could



be fixed with a tweak of a screwdriver. Sure enough the problem was isolated to the colourburst frequency adjustment pot in the RocGen. A tenth of a screwdriver turn later we were back in the land of living colour. Simple fix for some, but to a novice it would have meant a disappointing return to the dealer. My advice here is to ask to see the unit running as advertised while still with your dealer before you take delivery and part with your hard earned cash.

Basic operation of the RocGen is very straightforward. The unit is plugged into the RGB connector of your Amiga, then your Amiga monitor can be plugged into the Genlock. In this configuration you get an RGB and Composite video output of your Amiga graphics from the RocGen, as the unit has an internal sync generator. The VIDEO OUT plug can then be plugged directly to the VIDEO IN of a VCR to allow recording of your Amiga graphics.

Moving right along, the main use for a genlock is usually to superimpose graphics or titles over a live or taped video source. This configuration requires a composite video source (gained via the "Video out" on your VCR or Camera) to be plugged into the VIDEO IN plug at the rear of the unit. The VIDEO OUT plug of the RocGen then sends a combination of Amiga graphics and video to your VCR or TV monitor. Depending upon how the two rotary dials are adjusted at the front of the RocGen, the output effect may be varied.

For example, you can have titles overlaid on top of video or video visible through "keyholes" in your Amiga graphic. Titles may be faded in and out. Video can be faded in over an Amiga graphic and so on.

Key Support

To aid the video production process, the RocGen also has a VIDEO THRU connector, which loops the incoming video through the genlock without it being affected by the Amiga which aids monitoring of the incoming video. There is also a KEY IN connector. Unless you have a video production mixer or switcher (read: big bucks) this feature is of little use to the amateur videographer.

Out of interest I tried to make use of this connector with a Panasonic MX-12 Hi-Band video production mixer. Frankly I couldn't get the RocGen to work via the KEY IN connector, and freely admit to possibly not sending the correct signal to this connector. However, if the RocGen can perform some sort of luminance keying, the manual is extremely cryptic in describing just how it is achieved.

Examining the quality of the encoded output of the RocGen revealed a few surprises. Without an external sync source I could only describe the composite signal as "ordinary". There was bleeding and cross colour distortion on just about every screen I could send through the unit. A convergence pattern was not a pretty sight. Vertical "rainbow like" artifacts could be seen on the composite output of the RocGen. The situation changed somewhat when a high quality external video signal was put through the RocGen. Colour bars were evenly saturated and showed little bleeding, there

was minimal "dot crawl" or cross colour distortion. The convergence pattern I had previously sent through the RocGen now recorded cleanly, and in general I'd have to say the result was good.

Similarly, Video-8 and VHS taped material sent to the genlock performed well, and despite some very domestic quality footage, the RocGen had no problems locking to the signal and the subsequent output recorded cleanly. There is a lesson to be learnt here: in many genlocks "internal sync" equates to "low end". The RocGen fortunately takes and preserves a high quality external sync source, so if you have good quality video equipment the RocGen will at least preserve your investment.

Conclusions

Overall the RocGen Plus genlock, despite having a few teething problems, performed very well when used in conjunction with good quality domestic video equipment. The dual faders on the front of the unit allowed some very professional looking dissolves to be created using little more than a Handycam and VCR.

For those about to wade into the waters of home video production, the addition of the RocGen to your Amiga is certain to add spice to your next production.

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Picking a Printer

Printer technology has gone mad. Even base models are now packed with more features, buttons and fonts than what was once considered a top class machine. Andrew Farrell compares four dot matrix colour models.

In the past, in printer comparisons like this, we have attempted to include a huge range of models and often ended up with such diversity that there was no clear winner.

How things have changed. Modern printers now tend to share a similar range of features, price tag and look. What's more, options such as colour are now standard features. So, it should be a little easier to compare the leaders.

To help do this we devised a test created in *Professional Page* to output a range of graphics and text to the printer. The results appear on page 18 and 19. In all cases the output density was adjusted to half the maximum to allow for the colour and greys.

Printer Basics

Getting ink onto paper was once the domain of a few skilled people. Now anyone can churn out reams of professional looking text. Print technology has become an affordable commodity, and the methods have improved considerably over the very early impact printers we once had to shout over.

These first models bashed the ribbon with the shape of a letter stored on a daisy wheel or on larger models on a spinning drum or chain. They were noisy,

slow and inflexible beasts which have long fallen by the wayside.

Stepping forward in time we come to the early dot matrix printers. These create an image using pins which independently strike the ribbon from a moving print head to create a matrix of dots which in turn form the necessary characters. Early models were crude, noisy, slow and by today's standard, expensive. However as time went on, they have become fast, high quality, affordable and reliable and remain the mainstay of printer technology.

The latest models offer 24 pin detail, colour, excellent near letter quality print, 360 dots per inch (DPI) graphics and a range of built in fonts. Although the resolution of these printers is indeed higher than your average laser printer, I can assure you that the quality still lags behind.

Nevertheless, at around \$500-\$1,000, even the most expensive models represent good value for money and excellent performance. It is this kind of printer that is commonly chosen for home use and is readily available from most computer outlets.

During the onward march of dot matrix technology, a number of other print methods surfaced, some good, some plain horrid.



Citizen GSX-140

Thermal transfer was popular for a while and is still used today by the fax machine. It is quiet, compact and reasonably reliable. But the drawbacks are that the paper is expensive, it fades and some models had dreadful problems with heads wearing out. Thermal printers are not readily available today.

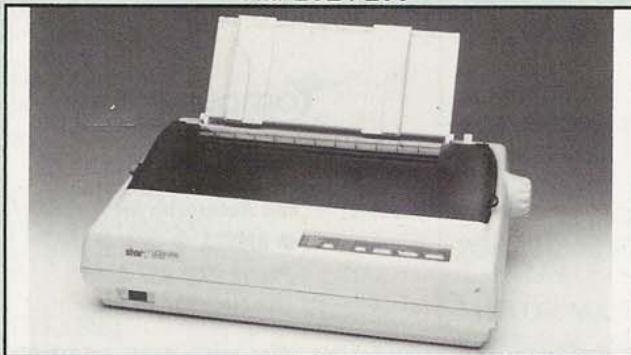
Ink Jet technology has survived from early days of blotchy, messy output to the now sophisticated brilliance of full photographic colour images. If you want top quality colour output, the inkjet is the way to go. These machines pump ink onto the page in four colours - cyan, magenta, yellow and black. The same four colours are used for creating full colour images in traditional printing.

The ink moves through the tiny ink jets, which may become clogged from time to time, and splats onto the page. The splatting bit has improved over the past twelve months, and now these machines are happily doing all sorts of high resolution output. Expensive, but beautiful quality. Some dealers carry these printers, but not many.

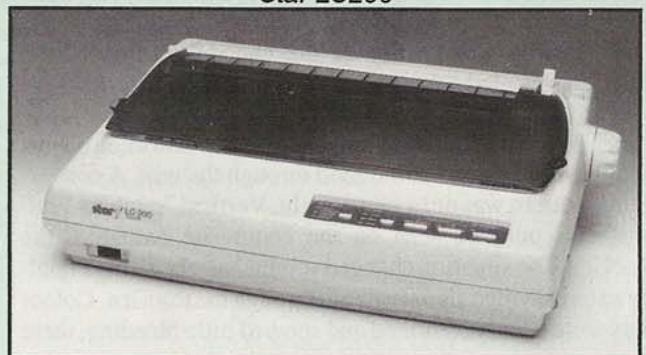
Laser printers are not for your average household wordprocessing requirements. They are expensive to run, and to buy (\$1500-\$4500), even a low end model.

Of course, we all know that laser

Star LC24-200



Star LC200



printers work like photocopiers. The toner is transferred to a drum and then onto paper by creating a static attraction between the two mediums. Toner produced better results than your regular carbon ribbon used in a dotmatrix printer - it is far more consistent and holds solid black areas much better.

However, for real serious work, the resolution is still not quite typeset quality. Characters, although appearing crisp to some, upon closer inspection have actually got slightly fuzzy edges. Still a lot better than dot matrix and a tad more consistent than the results from new technology such as ink and bubble jet machines.

Star LC24-200/LC200

Both Star printers we tested feature a sleek new case, colour output and a high level of control from the front panel. Star have always offered good value for money in the features area. My only immediate reservation about the printer was the top lid, which seem poorly hinged.

Installation is reasonably simple. The ribbon is easy to insert, there's a roller unit which sits above the platen to install - it locks into position smoothly. The power cable is moulded into the rear of the unit and the centronics port is sensibly located on the right hand side, out of the paper path's way. Another well thought out item is the placement of the power switch on the front.

Both models look sharp and are ergonomically designed. There are five panel control buttons using small micro-switches. A handy guide to the functions of each button is provided in the form of an overlay card which may be flipped to view all the potential functions.

Paper loading is a snap. The paper feed button not only loads the paper, but places the printer on-line once the paper is in position. From the front panel you can also micro-feed the paper (very small line-feeds) making it virtually unnecessary to touch the platen knob on the side.

Paper handling is good, with push/pull tractor feed which may be loaded from the rear or through the bottom.

Like the previous models, Star have also included a paper-park facility to save you having to unload tractor fed paper in order to use single sheet friction fed material.

EDS mode on both models provides access to low-level printer settings, replacing the need for dip-switches which are tricky to get to and difficult to interpret.

The LC24-200, the 24 pin version, has one draft font, a high speed draft font and five letter quality fonts (Times Roman, Sanserif, Courier, Prestige and Script). All fonts may be italicised, condensed, bold, double sized and quadrupled sized.

The nine pin LC-200 has one draft font, one high-speed draft font and four NLQ fonts (Courier, Sanserif, Orator and Script). Once again, all fonts may be italicised, condensed, bold, double and quadrupled sized.

Of course, with a good desktop publishing package, all this is rather pointless when outline font technology offers more control and better quality output (*Professional Page, PageStream*,

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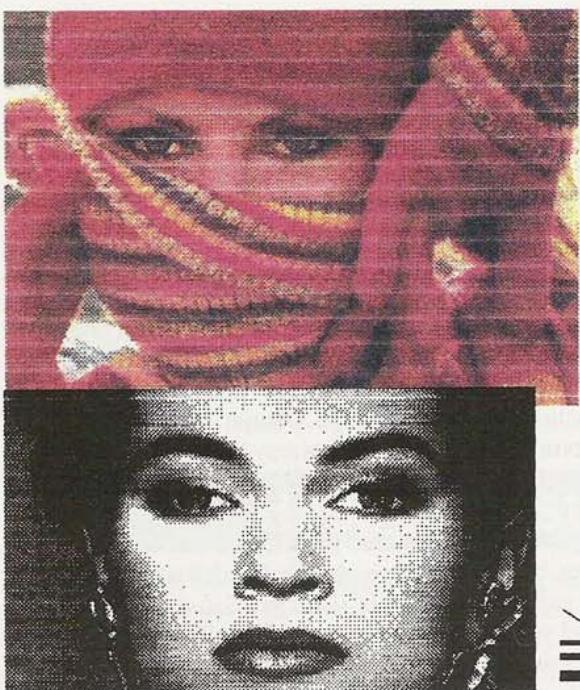
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AaQqRrGgZz0123456789 Star LC24-200



AaQqRrGgZz0123456789 Star LC-200

WordWorth 1.1 and a new wordprocessor available soon).

Both printers emulate both Epson and IBM printers. I tested them using a special Star24Plus driver and the EpsonX driver for the 24 pin model and the EpsonX driver for the nine pin version.

Citizen 200GX/GSX-140

After toying with the Star range for some time, I was wondering how a similar priced printer could improve on the ease of use and good performance of these two popular machines. Well, much to my surprise, the Citizen models had plenty to offer.

Unlike the Star pair, the two Citizens have a number of major differences. Once again, the two models were a 9 and 24 pin version, both with colour option fitted.

In common, both printers have a clever two step fold away cover which remains attached to the unit even after folded full away. This system is very similar to the heavyweight Fujitsu printers which we have so praised in the past. Well done Citizen, this is an excellent design.

The centronics port is located on the left side and the power switch at the right side. The power cord is a separate cable and the only thing to attach for installation is the paper guide and ribbon. The latter is a rather unusual design, with a flying ribbon guide which moves along the ribbon with the print head.

Paper may be fed through the bottom and the tractor is of the push/pull variety. Although neither model has the smooth lines of the Star machine, the beefy square lines are functional - and who cares about looks anyway? The control panels are both completely different from the multi-buttoned Star.

The 200GX has four pressure areas on the display panel with an LED in each one to indicate a selection. Next to each button is a small window with an indicator showing the currently active function of the switch. To alter this, there is another slide switch which alters the window contents of all four buttons, effectively giving 16 buttons, all labelled and made easy to use. You can pretty well guess your way through the system to alter a wide range of settings. The 200GX offers a single definable Macro for storing settings. Low level options are selected from two banks of dip switches easily accessible by means of a cover at the right hand top rear of the machine.

With an LCD display offering a simple to use menu system for selection of print options along with four macros for storing settings, the 140 was a pleasure to use. Without so much as turning the front cover of the manual I was quickly adjusting all sorts of settings. Dip switches are a thing of the past. Top marks for ease of use.

The Citizen 200GX emulates the Epson FX-850 and Proprinter III, whilst the 140 emulates both Epson

LQ-series and IBM Proprinter X24. Both emulations offer addition Citizen exclusive features too.

On the 140 you can choose from LQ Roman, San Serif, Courier, Prestige and Draft fonts. The 200GX offers two draft fonts, Sans Serif, Roman and Courier.

Final Results

Of the four printers tested, the GSX-140 was the most impressive. Overall, both Star printers performed well. Both models only offer a single macro, with only a small number of stored settings. The LC24 appeared to have some problems with colour smearing. Although I tried a number of adjustments, I couldn't solve this problem.

The Star printers are certainly in vogue in so far as design lines. They are heavier units than the Citizen models. The documentation is good, but tends to concentrate on many of the low level aspects of the printer's operation rather than discussing how to obtain compatibility with software. For Amiga owners, this is all much of a muchness. All you need to know is how to use the front panel, and which printer driver works the best!

The Citizens are more advanced units, with easier to use front panels. The GSX-140 offers superior operation and colour output than any of the other units. Both printers performed very well in the grueling output test and the documentation was also more impressive than the Star. For the money the 9-pin Citizen GX200 at \$499 is excellent value and produces exceptional colour results.

In the 24-pin department I would also recommend the Citizen GSX-140 at \$699. It is easier to use, and once again produced more consistent results. In terms of speed and resolution both the 9 and 24 pin models of each brand are comparable.

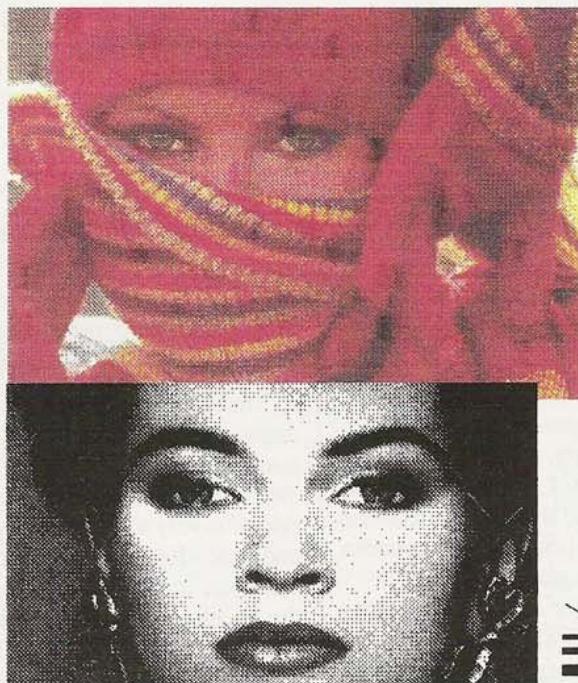
All the printers offer an incredible range of features and are typical of the immense improvement in printer technology we have seen in recent years.

Thank you to Pantek and Star for the loan of the printers. Next month we'll be pitting the 24-pin models against the new Canon Bubble Jet to see which wins for desktop publishing!

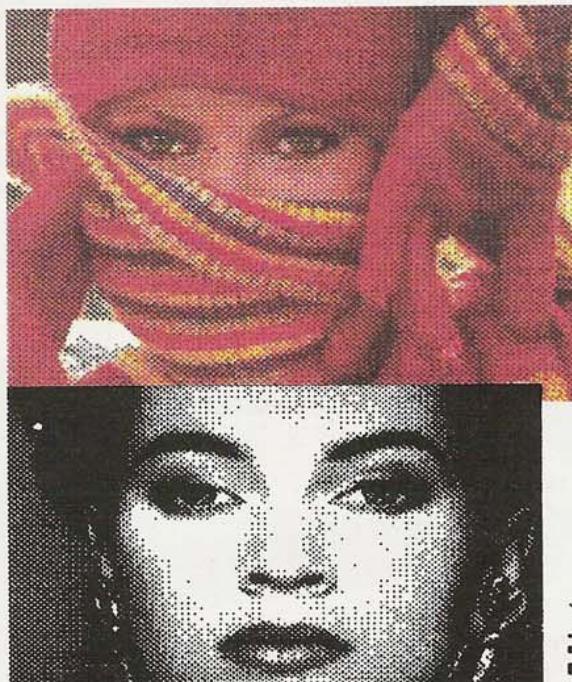
Specifications in Brief

	DPI	CPS			
	Max	Test	Draft	NLQ	\$
9-Pin Star LC-200	240	120	150	37.5	\$
Citizen 200GX	240	120	213	40	\$499
24-Pin Star LC24-200	360	180	167	55.5	\$749
Citizen GSX-140	360	180	160	53	\$699*

Text would appear improved if output at the highest resolution, but this mode is not suitable for graphics containing colour or greys.



AaQqRrGgZz0123456789 Citizen GSX 1400



AaQqRrGgZz0123456789 Citizen 200GX

Panasonic KX-P1124

User Report

After managing for over a year with a trusty Seikosha SP-1600A/9 pin dot matrix printer, Alan Stuart decided it was time to upgrade.

I tend to play around a lot with desktop publishing, so I wanted a printer that would give me good results. That night I had dreams of owning a Postscript laser printer, so next morning it was off to the bank, where I found my account contained about \$4500 less than what the cost of a postscript laser printer. Oh well, back to plan 'B'.

Plan 'B' was for a 24 pin dot matrix printer. I wanted to spend as little as possible, and not more than \$1000. I had previously seen an Epson LQ-500 at about \$650, but was not very impressed with its features. I then phoned my favourite computer store, Computer Corner (Metro Maddington, WA, 09 459 0650), and Trevor told me about the new Panasonic range. Within two days, Trevor had sent me the brochures and prices.

After studying the material, the KX-P1124 at \$799 looked as if it would fit the bill. When I phoned again to place an order, Trevor told me that Panasonic had a promotion on and the KX-P1124 was reduced to \$599! No more thinking, the printer was here within a week.

Features

The Panasonic KX-P1124 is a 24 pin impact dot matrix printer, and can emulate an Epson LQ-2500 or IBM Proprinter X24. Construction of the printer is very solid with plenty of steel and cast aluminium. Power lead and computer input are at rear, but clear of the paper path, so no catching on the paper. Power switch is on the right side of the printer, towards the front.

The available fonts are draft, and 5 NLQ fonts (Courier, Prestige, Bold PS, Script, and Sans Serif). Print pitches can be 10, 12, 15, 17, and 20 characters per inch, or Proportional Spacing for NLQ fonts. Lines per inch can be set to 3, 4, 6, 7.5, 8, or 12. Text printing is excellent in the NLQ fonts, even at 20 cpi.

Print speed is fairly healthy in draft (24x9 dot matrix) at 160 characters per second (10 cpi), or 192 cps (12 cpi). NLQ mode (24x30 dot matrix) is 53 cps (10 cpi), or 63 cps (12 cpi). The printer has a buffer of 6K (Kilobyte), and an additional 32K buffer is available as an option.

Graphics

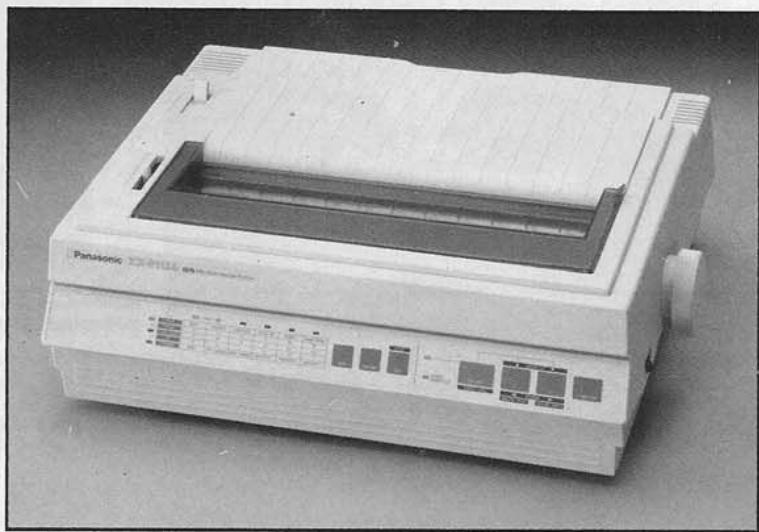
Graphic printing is fantastic. The printer is capable of printing to a resolution of 360x360 dots per inch, or 129600 dots per square inch. This is a higher resolution than a lot of laser printers can produce. The EpsonQ printer driver on Workbench v1.3 only allows a maximum resolution of 180x360 dpi, or 64800 dots per square inch. When using *PageStream v2.0*, I use the Epson LQ-2550 driver and this gives me the highest resolution possible.

Paper handling is exceptional. Paper can be fed from the front, back, or bottom. A unique tractor feed can be rotated in two different positions to act as either a pull or push tractor for continuous paper. In single sheet mode, paper as wide as 11.7 inch can be fed in. This means that A4 paper can be fed in sideways.

All print options are available through the EZ Set Operator Panel on the front of the machine. This panel consists of a number of membrane-type switches, with indicator LEDs (Light Emitting Diodes). Using the switches, you can set Font, Pitch, Form Length, Lines per Inch, Quiet Mode, Margins, Line Feed, Form Feed, Forward and Reverse Micro Line Feed, Memo Load, Perforation Cut, and read or write one of the three Macro settings!

The first few choices are self explanatory. Quiet Mode reduces the noise output of the printer by reducing the print speed. Most of the expensive printers have this feature. Micro Line Feed will advance or retract the paper 1/180th of an inch each press so that you can get the paper lined up just where you need it. The last three features are some of the best to have.

Memo Load is used to park and reload tractor feed (continuous) paper without removing it from the push tractor mechanism, or for loading single sheets. For example, press the memo load and the tractor feed paper is parked. Open the front slot, move the feed select lever to friction, insert the single sheet in the front slot, press memo load again, and the sheet is fed in to begin printing. When finished, select push tractor on



the feed select lever and push memo load to reload the continuous paper.

Perforation Cut is another well thought out feature. Pressing this switch will advance the paper about three centimetres so that the perforation is aligned with the perspex cover. At this position, the paper can then be torn off at the correct place (the perforations). Pressing the switch again will rewind the paper to the correct position to recommence printing.

The last feature of note is the three MacroSettings. When you have a printer with so many features, it is a real pain in the proverbial if you wish to change between a couple of common used settings. For example, for general memos at work you may wish to use the script font, at 12 cpi, and spaced at four lines per inch. For reports, your favourite settings may be Sans Serif font, 10 cpi, left margin at 15, right margin at 75, and 6 LPI spacing. Well, you can imagine the time involved at changing all this.

The KX-P1124 allows you to save your three favourite settings in three separate macros. By reading in a macro, at the push of a couple of panel switches, all the settings associated with that macro are sent to the printer, and presto! ready to go.

Another unique feature associated with the printer is the ribbon. The ribbon is similar to a Star NX-1000 that clips around the print head. The special feature of the ribbon is the small hole on the rear. When the print quality starts to fade (ink being used up), press a pen into the hole in the back of the ribbon, and a second ink reservoir is brought into service. After a few lines, the ribbon is fully re-inked and the life is doubled! Saves a trip to your local re-inker.

Documentation

One final item that can make or break the best of printers is the manual. If you can't use the features because the manual

is not clear, then the feature might as well not be on the printer. The manual is well set out, with plenty of illustrations and examples to get even the most timid beginner up and running. The text is clear and printed on good quality matt paper. Finally, there are no hard to understand sentences due to bad interpretation from one language to English.

Conclusion

All in all, the Panasonic KX-P1124 is a sturdy printer, designed to take more than average use, with plenty of easy to use features, and excellent paper handling. Print quality is sensational. The Seikosha SP-1600AI had what I thought was an impressive output from *PageStream 2.0*. The Panasonic's output is substantially better, and my desktop publishing has taken on a new feel.

I can safely say that the only reason I will upgrade from this printer is if I decide to go laser.

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MediaShow

Multimedia on a Budget

Software allowing you to combine music, sounds, graphics and animation is in plentiful supply. However, MediaShow offers several unique features, as Andrew Farrell explains.

Everyone I talk to has a different definition of multimedia. Most Apple people are sure you need a video or CD disc player in there somewhere. IBMers would be happy just to add sound and music. In the Amiga community, we might not have coined the word, but everyone agrees, this is the best platform for multimedia presentation.

I call the external devices option enhancements. So do Gold Disk. If you want everything, they have a package called *Showmaker*. It can control a disc player, Video Toaster, talk to other applications through AREXX, accept MIDI or SMPTE time code and assorted other impressive options.

However, most people require much less. Something more along the lines of *Deluxe Video*, with a little more elegance. *MediaShow* may be the answer.

It offers the ability to sequence SMUS music, IFF sounds and graphics and ANIM OPT 5 animation. The program also has the ability to add titles to existing images including animation and there are various wipes available to spruce things up. How well does it work?

Installation

MediaShow includes five disks - three contain the programs, example files and player and a number of ready to use backgrounds. The other two include simple paint and music programs (the

same two Gold Disk have been bandying around for some time) and an interactive product guide to Gold Disk's other products.

The guide is an impressive example of how a Hyperbook application can be put to work. I think more companies should consider providing information on products in a similar format, that's as well as demo versions. The screen shots are a good guide to what the programs look like.

Installation of *MediaShow* was a painful process. I tried once, the script had trouble finding two files, I cancelled the requestor and although the installation appeared to proceed, at the end there was nothing on my hard disk but a few new fonts.

Second time round I issued an Assign to help the script along. Once again, it now appeared to proceed a little more smoothly. However, at the end it failed again. This is the second time Gold

Disk's install script has been faulty. The Compugraphic fonts they distribute also have problems installing, and as with them I eventually installed *MediaShow* manually.

If you're serious about using a program like this, a hard disk is pretty well essential. You would need at least 1 Megabyte of RAM too, although more would be useful.

Operation

Unlike its big brother, *Showmaker*, *MediaShow* operates on a standard Amiga screen.

The work area or scene window is much the same - each element of your presentation has a track running across the screen on a time line measured in seconds. By opening the edit screen up fully, all seven tracks are revealed. They are Video, Title, Music, Sound L1, Sound L2, Sound R1 and Sound R2 (one sound per Amiga channel).

To place a new event, you simply click on the appropriate track and drag out a bar to the required length. Events can easily be shuffled around or have



their length adjusted using gadgets or requesters.

Once you have selected the length, a new window opens up on the screen window with details of the type of event you have chosen. Apart from title, all the events require you first specify a file compatible with the track you're working on.

Video

A video event may be an animation or still IFF image. A single image is viewed as a one frame animation.

Once loaded, *MediaShow* displays information about the number of frames, resolution and number of bit-planes. You can also alter whether or not animations loop, the frame rate and any special wipes to perform at the start.

Herein lie a few problems. You cannot simply choose an animation and have it play once at the correct frame rate it was created. Instead, you have to tweak the frame rate and event length until the number of times the anim will play shows as one.

This would be fine if this indicator was accurate. I found it to be inconsistent. For a start, the whole formula relies on the Amiga actually playing the animation back at the specified frame rate - a variable which can be difficult to accurately predict. The only way to work the program reliably is to overshoot slightly on every animation.

There are some 35 different wipes, however there were same problems in using them. Some didn't apply the palette until the wipe was complete. Others would only operate at very

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slow speeds and none offered a transition from the previous event which was always usable. Most of the transitions meant the two images were gradually combined, the new replacing the old.

This is fine if the images have the same palette - however most don't, so the transition means the first picture's palette is destroyed. The result is less than acceptable.

Titles

For all its failing so far, *MediaShow* has some unique features which make it worth considering. One of these is the ability to place titles over existing IFF images or anims on the fly. Standard Amiga fonts are supported and a simple editor allows you to place the text, format it, apply one of seven different effects, choose from several styles and colour.

Some 17 different motions are available, some of which are quite useful, others are so slow or jerky that I doubt anyone would bother with them. Once again, Gold Disk seem to have overlooked some of the basic requirements in this area. Even a simple fade-in effect is not catered for.

Positioning your titles is tricky and getting them to move on and off the screen is no simple task. For a start, there's no way of determining how long the title holds on screen - you simply have one time allotted to the whole process of moving it on, pausing and moving it off again.

Overall, I was disappointed with titling capabilities. Other programs offer much smoother, more useful capabilities. As wonderful as titling your animations may sound, it also has the

annoying side effects of making them run less smoothly.

Music and Sound

These two event types function well. Unfortunately, unlike *ShowMaker*, *MediaShow* does not allow you to time your presentation to the beat of the music. Sound effects can have their volume and rate adjusted, apart from that, they just play. The best part about the sound support is the ability to choose which channel to play back through - with each having its own track. Some fancy stereo effects can be achieved using this capability.

Presentation Time

Here is where *MediaShow* starts to show its true colours. Using a patented system of preloading each presentation element, *MediaShow* is able to effect smooth playback of all tracks without pausing to load new data. This works well so long as you have a moderately fast hard drive and plenty of RAM. Anything less and you will find *MediaShow*'s potential is severely limited. The demonstration production in-

cluded looks very impressive - however, this is mainly thanks to a couple of clever animations rather than anything *MediaShow* does.

No doubt, there will be those who find this feature alone - smooth, continuous playback - makes *MediaShow* worth considering. However, there are so many other features which are short-changed that I think you would find *CanDo* or *AmigaVision*, at around \$50 less, better value for money.

In essence, Gold Disk have stripped out so many good features from the heavyweight version of this program that what is left is just not worth the \$199 price tag.

MediaShow stands up well as a quick and dirty presentation package. If you want to get something together in a hurry, this is the package.

However, you would have to know the program's limitations well and work within them. If you have time to learn something more powerful, I would think that *AmigaVision*'s resource management could be made to provide continuous play capabilities similar to *MediaShow*. Certainly not as elegant, but then you're getting many other features not available in *MediaShow*.

MediaShow needs tightening up in several areas. It also needs some of the features *ShowMaker* has to make it worthwhile. The manual is a bit skimpy for the money too - 35 pages not including the appendix.

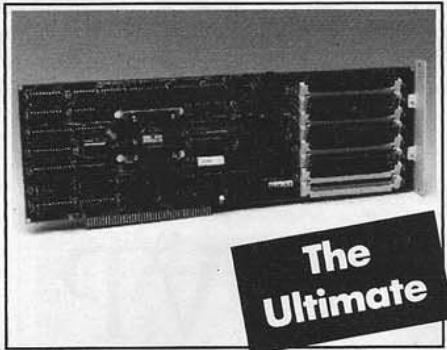
Overall, a lot of potential, some powerful unique features, but too many shortcomings for the money. Gold Disk need to think this one over.

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Hardware Project

Mouse-Joystick Switch

by J. Throssell

Your Amiga has two controller ports; one for a mouse or joystick, and one for a second joystick. However, what happens when you need to swap your mouse for that second joystick for two player games? Or how about a light-gun, trackball or an analogue joystick? You have to fiddle about unplugging one to plug the other in. Invariably, you can't do it by feel, and with an A500, have to slide it forward and hold your head upside down to see what's going on ... Until now.

Here is a do it yourself switch-unit to select between two or three different controller devices. It plugs directly into the back of an A500, but could be used with any Amiga by building an extension cable.

Keeping costs down

By assembling this project yourself, you will easily have change from thirty dollars. To keep costs down, the use of an expensive commercial case has been avoided. (There were none the right size, anyway.) This also means you don't have to spend heaps of time aligning and drilling holes for the DB9 connectors. Believe me, you have better things to do. Additionally, an inexpensive, easy to obtain rotary switch

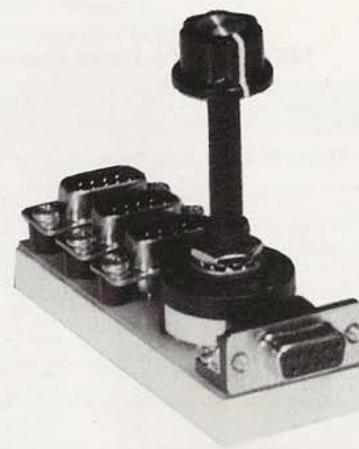
has been used. A switch to enable/disable all nine possible connections is both bulky and very expensive. Instead, a thoughtful design compromise was made; switching only the four essential connections.

Before you jump in

Building electronics projects is a fun and satisfying pastime. Like computing, it presents you with endless skills to learn, and problems to solve. Like computing, you also have to learn to walk before you can fly. This is a simple project, but requires fairly fine soldering. If you are new to soldering and other electronic construction techniques, you would do better to start on something else first. Try a Dick Smith Fun Way Into Electronics project. Once you can construct a Fun Way Volume 2 project, this one will be easy! You can always buy the switch-unit ready made, if you prefer.

Construction, step by step

1. The female right-angle DB9 connector should be disassembled; removing its front lock-nuts and PC board



Build a Mouse-Joystick Switch

mounting pins. With these gone, its metal faceplate may come loose - use a dab of glue such as Araldite to hold it in place. Don't get glue on any electrical contacts.

2. While you have the Araldite handy, use a pin or small nail to put a dab on the base of the sixteen rotary-switch legs. This is important - it holds the metal legs to the switch's plastic base, and saves them being dislodged as you fit the switch to the PC board. Don't get the glue too high up the metal legs, or the switch will not sit flush on the PC board.

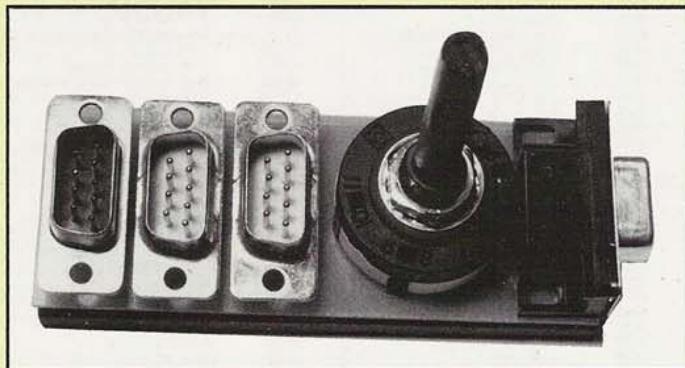
3. Using the PC board as a template, mark and drill eight mounting holes along the edge of the kraftwood base. Make sure the PC board is the right way around, and the tracks are facing down. Try not to drill all the way through the kraftwood.

4. You must now wait until the glue is dry. It is best to solder the rotary-switch in first, so be patient; don't be tempted to solder in the other components yet.

5. When the glue is dry, use side-cutters to carefully trim the round eyelets off the rotary-switch's sixteen legs. This is so the legs can be fed through the holes in the PC board; don't cut them too short! Try not to twist the legs as you cut them - they are a tad fragile.

6. Mounting the switch requires a little patience. Ensure none of the legs

Component placement. The right-angle D-9 connector (at the right of the PC board) plugs into your Amiga.



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are bent, and none have burrs which may prevent them fitting through their holes. The legs are numbered; leg-1 is soldered to the only square pad, leg-2 is closest to the right of the PC board (see photo). A pencil mark on the side of the switch and above the square pad-hole will help maintain alignment. Note: you must align the switch correctly - it will not work if you don't. Gently manoeuvre the switch into place, ensuring no legs get bent under or caught. With the switch neatly in place, ensure all legs are through their holes. Ensure the switch shaft still turns, and clicks positively. Now you can solder it in place, being careful not to short any tracks with solder blobs.

7. You can now insert and solder the four DB9 connectors. As in the photo, the female right-angle DB9 goes at the right of the PC board. Again, solder carefully, and ensure the DB9s sit flush and square on the PC board.

8. Using side-cutters, trim any excessively long leads from the rotary switch, to ensure they will not touch the kraftwood base. You should not have to trim the DB9's.

9. Check your work! Look for dry-joints and shorted tracks. A multimeter or circuit tester will help, but is not essential.

10. Once happy with your soldering, the PC board can be fixed onto the kraftwood base. Firstly, put the female DB9's 4BA replacement lock-bolts in position. Now screw in the two rightmost self-tappers - these will keep the lock-bolts from falling out. The remaining self-tappers can now be installed, using a small plastic spacer between the PC board and the DB9's mounting shoulders. Don't overtighten the self-tappers. The spacers are cosmetic only; leave them out if you wish.

11. Fit the switch knob to the end of its shaft. With the unit rear mounted on an A500, the switch shaft sits just high enough to be reached.

12. Turn off your Amiga, unplug your mouse, and plug in the completed switch-unit. Screw in the two lock-bolts; these will stop the switch-unit working loose. Now plug your mouse and joystick in, and you're ready to test.

Testing and trouble shooting

The most clockwise switch position enables the outermost DB9 connector, the centre position enables the centre DB9. Turn the switch to enable your mouse, then turn on the power. Your Amiga should behave as usual - remember to check both mouse buttons. Turn the switch to a different position. The mouse should stop working.

Re-enable the mouse and fire up your favourite two player game. Now switch to the joystick. Ensure that you can move in all directions, and the fire button works. Hopefully, you are now happy and finished. No? Power down your Amiga, don't despair, and read on. There is little that can go wrong with this project. The worst event - a misplaced rotary-switch, can be avoided by following step 6 carefully. A misplaced rotary-switch is likely to stop everything working, in all switch positions.

A bad solder joint, or splashed solder are the only other likely gremlins. If a mouse button or fire button fails to work, look for a bad solder joint. If the joystick is stuck in a particular direction, suspect splashed solder. If you can't fix it, try a friend or your local user group.

The design

Compatible with devices described in the Amiga Hardware Reference Manual, the switch-unit has been tested with the Amiga mouse, normal joysticks, auto-fire, and analogue joysticks, plus a light-gun.

The switch-unit passes pins 5,7,8 and 9 of a selected connector to the corresponding pins on the Amiga. All other pins are permanently connected. Thus, the power and ground rails are removed from any non selected device. Likewise, the analogue joystick wipers are disconnected, preventing them from possible interference with other devices.

The switch-unit would not be suited to anything other than its intended purpose. Because Amiga controller ports

are software reconfigurable, it is possible that some form of controller could be incompatible with this design. None have yet been found.

Going further

Depending on response, I'm contemplating a series of do-it-yourself projects in the months to follow. Surprise surprise, included are several games controller devices. If you like motorcycle simulators, the next project will be a blast ...

All care, no responsibility

With electronic projects, mistakes may cause damage - even to your Amiga. In the unlikely event of damage of any kind, neither the author nor this magazine may be held responsible or liable in any way.

Parts List

1 x PC Board
As per the artwork
1 x Kraftwood base. 9 x 32 x 83mm.
Routed to 1mm for component leads
1 x Rotary-switch. 4 pole 3 position.
Available from Dick Smith cat. P-7520

1 x Female DB9 connector. Right-angle PC board mounting - available from Dick Smith cat. P-2683

3 x Male DB9 connectors. PC board mounting

8 x Self-tappers.

12 x 2.5mm6 x Spacers. 4mm black plastic tubing cut to 5.5mm

2 x 4BA bolts. 6mm

You will also need

Araldite or similar glue, solder, and a knob for the switch. Choose whichever style of switch knob you prefer.

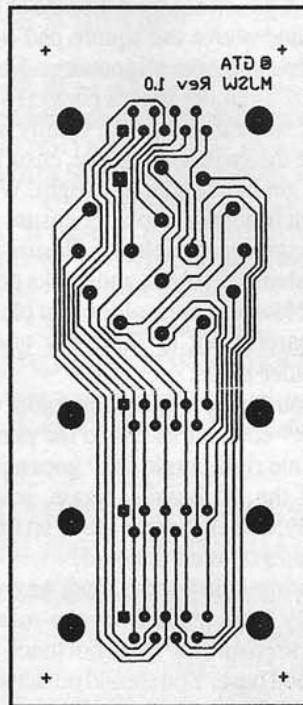
Special Offer

To make your life easier, the author has arranged a series of kits, available for the next few months. All prices include postage and packing.

1. Pre-drilled PC board, and matching kraftwood base. \$12.00
2. Kit of parts, including the above. You supply the knob, solder and glue. \$27.50
3. Complete unit, assembled and tested. You choose and supply the knob. \$34.90

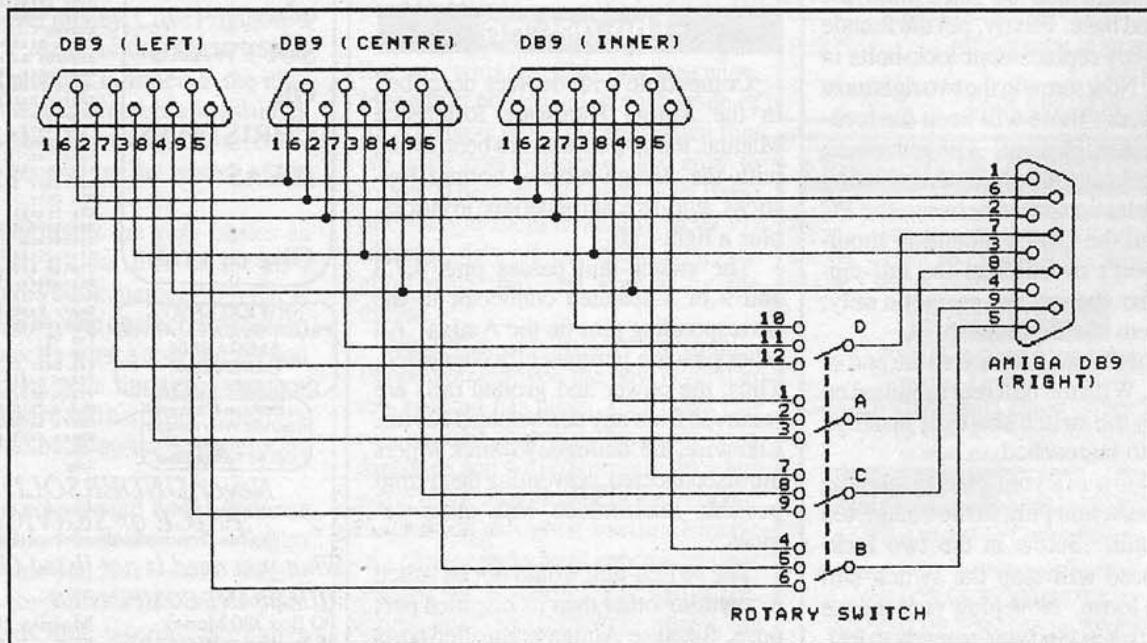
Simply send a cheque or money order to GTA Systems, and allow 14 days for delivery. The address:

GTA Systems
Amiga Switch Kit Offer
GPO Box 2171
Canberra, ACT 2601



PC Board Artwork - Actual Size

Circuit Diagram





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Letters TO THE EDITOR

Dear Andrew, I have had my Amiga 500 for about 12 months and I have found the computer to be excellent. I have got to the stage now where I want to try and create my own Icons to put with utilities and assorted programs I have collected which don't have Icons.

I am not a computer whiz and I find the Amiga Dos manual heavy going. I have tried using the Icon editor on the workbench disk but this will only let me modify existing Icons.

Could you please recommend a simple to understand text book, or suggest a program with easy to understand documentation I could purchase to solve my problem.

I don't fully understand how files are

tied into the icons but I have a feeling it's through script files? I have tried opening the info file through a wordprocessor or through CLI using the TYPE command and all I get is a load of characters, presumably machine code or some other language.

If the problem I have written to you about is a bit more complex than I thought, would you consider doing an article in ACAR about the subject covering what Icons are, how they are executed, how they are tied into the files and how to design Icons through a painting program.

I am sure that there are other users out there who would also be interested in learning a bit more about Icons and their creation. Thanks heaps for any information or advice you might be able to give me on the subject.

John Hymus
Ingleburn NSW

Ed: Yes it is, yes we will! In the meantime, try obtaining one of the many icon theme disks around containing any of the

excellent icon editors available. Watch our January issue for the full story!

Dear Sir, I'm writing to ask for some advice.

I have a C64 and use a Datacassette to store and save my programs.

For a while now I have the wish to write my programs in machine code but been unable to obtain the relevant and necessary information to do so.

Would you please let me know how I can go about getting into machine code with the equipment I already have.

Thank you for your time and your great magazine.

E Klotz
Ravenshoe Qld

Ed: You need: The C64 Reference Guide, a 6502 machine code reference book, an Assembly/Editor like PAL and a machine code monitor like Action Replay II.

Ring our subscription department and ask about getting backissues containing the C64 machine code tutorial by Andrew Baines.



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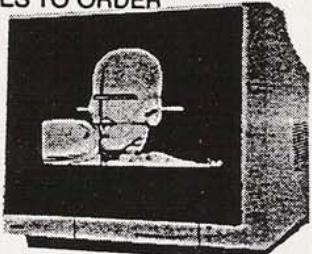
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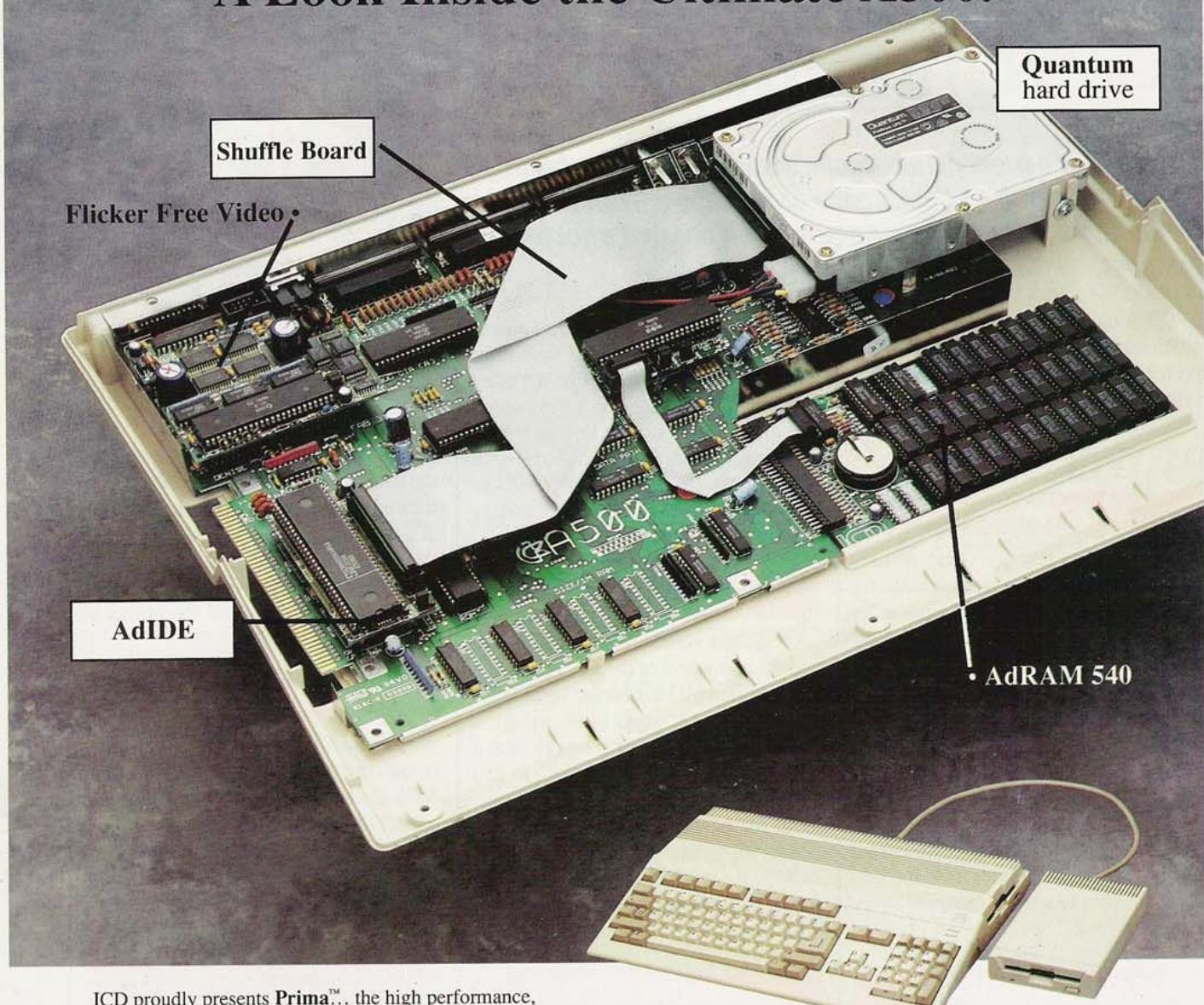
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I'm looking for something with no artificial anything. We're talking 100% performance. Well, it depends on the price of course.

So, let's start with something cheap everyone can afford.

Under \$20

☛ A few disks of public domain software could keep you entertained for hours. Several companies now offer packs of software which are excellent value. Games, utilities, education - it's all available. See the advertisements in this issue.

Under \$50

☛ Replace your Amiga mouse with ROCTECRM300C. Better buttons (real micro switches) a smarter look and better feel - this is a must have for every Amiga owner.

Under \$100

☛ For this sort of money, grab yourself an extra 512K of RAM and start

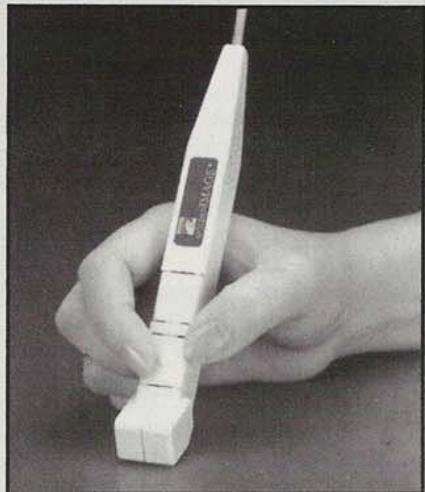
playing some of the 1 Megabyte games around the traps. Even old favourites like *Interceptor* have better digitised sound samples when run in expanded memory conditions. As low as \$89 or even less - be sure to get a model with battery back calendar. On/off switches should be external ... the internal variety are too hard to get at.

Under \$150

☛ When your mouse becomes old and fat compared to the fast paced life you're trying to lead, it could be time for a brush mouse. It's not a brush, in fact, it looks like a pen - but it works like a mouse. The JP-100P is accurate to 250 DPI and replaces the Amiga mouse. Ideal for painting, structured-drawing or just mouseing, er, brushing around. At \$139 the brush mouse ain't cheap, but then it's got a lot of style and sure leaves your desk a lot less cramped.

Under \$200

☛ What's thin, black and looks great next to a CDTV player or dangling off



The JP-100P

the side of an Amiga 500? How about the new slim-line matt black Roctec 3.5 inch external floppy drive. Not that the drive is floppy, but that's what you feed this sleek black critter. Complete with pass-thru and on/off switch, the external drive which out-looks all the others is \$199.

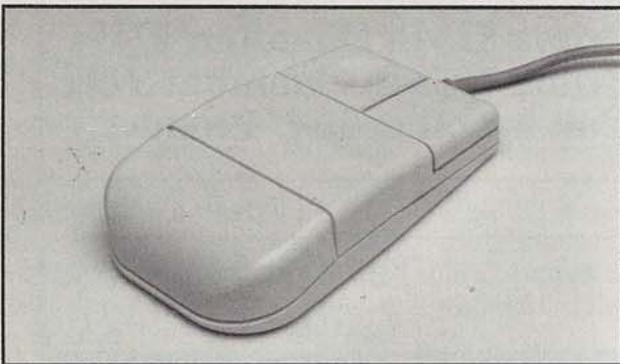
Under \$400

☛ A must have for every Amiga 2000 owner, the A2320 De-Interlacer card at \$375 fixes your flicker problems forever. Did I mention you need a \$750 Multisync monitor to go with this baby? Well, you do. Ideal for CAD, Desktop Publishing and 3D Modelling.

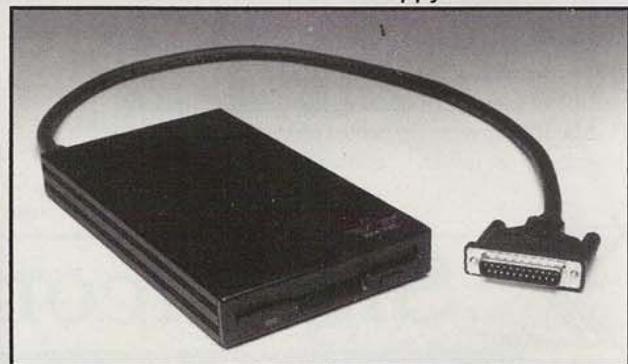
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matrix printers around (check out the review in this issue). Along with an easy to use control panel, tractor-feed paper parking and 240 DPI, this printer is ready to handle the majority of Amiga tasks. Expect to pay \$499 from most Amiga retailers.

Under \$1000

• The best (and I say only) way to add a hard drive to your Amiga 500 is the GVP A500-HD with room for some eight megabytes of RAM. A fast, no fuss solution which looks at home next to the A500. Complete with a 52 Megabyte hard drive, you might pay \$999 at the right shop.

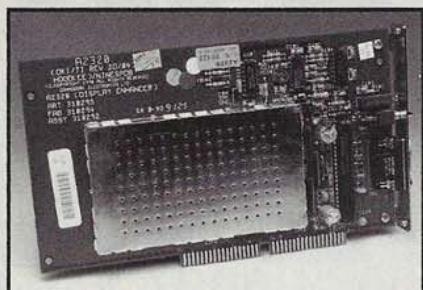
Under \$1500

• CDTV - Well, this is a maybe. At

\$1375 the price is becoming more tempting. However, you may want to wait for the A690, the Amiga 500 add-on CD Drive. Many Amiga games don't work on the player and applications are still only trickling out. (We heard a rumour that if you're at Grace Bros. on a Saturday and meet a Commodore consultant, you could be the fortunate recipient of a free copy of Groliers Encyclopedia, value \$599, as an incentive to help you decide to buy a player. What a bargain!

• How about a Sharp JX-100 scanner? Not quite the same as the JX-300 here at ACAR's offices, but good enough for small jobs. Full 18-bit accuracy, fine for scanning prints. Good enough for professional quality black and white half tone scans. Every desktop publisher's dream. Hard Disk Cafe have them for \$1495.

And don't get caught with these...



A2320 Display Enhancer

AREXX - Why bother! Workbench 2.0 has AREXX included as part of the \$99 upgrade available soon. Hang around a short while and you can pick it up as part of the whole deal.

Sculpt 4D - No longer supported by the publisher and fast being superseded by packages such as *Imagine* and *Real 3D*, Sculpt is fast turning into a white elephant. Best avoided at around \$599.

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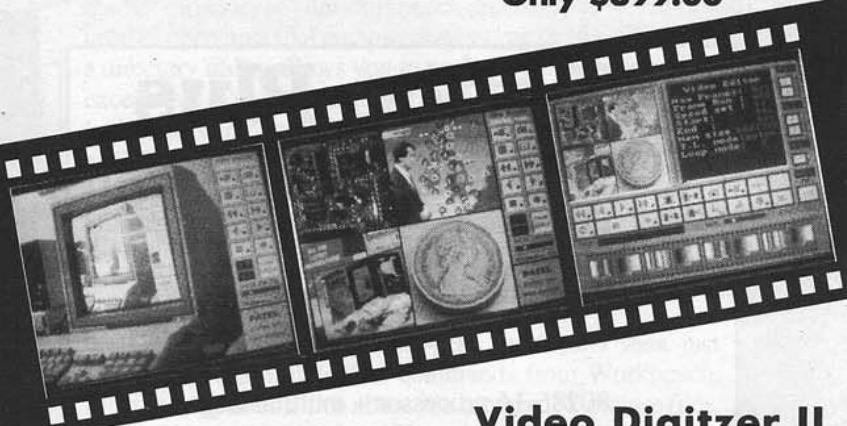
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Now this super disk copier program is built into Action Replay Mk III. Just imagine a superfast, efficient disk copier program at the press of a key - no more waiting.

• SAVE PICTURES AND MUSIC TO DISK

Pictures and sound samples can be saved to disk. Files are saved directly in IFF format suitable for use with all the major graphic and music packages. Samples are displayed as screen waveform.

PAL or NTSC MODES SELECTABLE

Useful for removing ugly borders when using NTSC software. (Works only with newer Agnus chips).

• SLOW MOTION MODE

Now you can slow down the action to your own pace. Easily adjustable from full speed to 20% speed. Ideal to help you through the tricky parts!

MANY MORE INSTANT CLI COMMANDS

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• RESTART THE PROGRAM

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• FULL STATUS REPORTING

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• POWERFUL PICTURE EDITOR

Now you can manipulate and search for screens throughout memory. Over 50 commands to edit the picture plus unique on screen status "overlay" shows all the information you could ever need to work on screens. No other product comes close to offering such dynamic screen handling of frozen programs!!

JOYSTICK HANDLER

allows the user to select Joystick instead of Keypresses - very useful for many keyboard programs.

• MUSIC SOUND TRACKER

With Sound Tracker you can find the complete music in programs, demos, etc. and save them to disk. Saves in format suitable for most track player programs. Works with loads of programs!!

• AUTO FIRE MANAGER

From the Action Replay III preference screen you can now set up autofire from 0 to 100%. Just imagine continuous fire power? Joystick 1 and 2 are set separately for that extra advantage!

IMPROVED RAM EXPANSION SUPPORT

Now many more external Ram Expansions will work with all Action Replay III commands.

• DISKCODER

With the new "Diskcoder" option you can now "tag" your disks with a unique code that will prevent the disk from being loaded by anyone else. "Tagged" disks will only reload when you enter the code. Very useful for security.

SET MAP

allows you to Load/Save/Edit a Keypad.

• PREFERENCES

Action Replay III now has screen colour preferences with menu setup. Customise your screens to suit your taste. Very simple to use.

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Invaluable disk monitor - displays disk information in easy to understand format. Full modify/save options.

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- Copper Assemble - now with suffix names

REMEMBER AT ALL TIMES YOU ARE INTERROGATING THE PROGRAM IN IT'S "FROZEN" STATE WITH ALL MEMORY AND REGISTERS INTACT -

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Amos for Aardvarks

Part I

If you're eating AMOS code in the wee small hours, or battling the Atari-like interface and loving it, you need this column. Starting this month, Wayne Johnson brings us the latest on AMOS along with useful tips and hints on making AMOS cook.

Those of you who have abandoned the AmigaBASIC ship and joined the AMOS race will know what a serious and powerful programming platform it is. We now have the power to create that dream game, utility, or database, the list goes on. Everything that was once only possible in assembler, is now available in AMOS. You can manipulate the copper lists, convert and use *Soundtracker*, *GMC* and *Sonix* tunes (full *Protracker 1.1b* and *Med3.1* support on the way), access to screen and window programming, fully manageable Sprites and BOBs, mouse and joystick control, interrupts and more. All using simple BASIC type commands.

What is AMOS anyway?

For those who don't know much about it, AMOS itself is slightly Pascal related with its structured layout with Procedures and so forth. Procedures are like subroutines except that they can be closed into a single line and be called like a command - no more GOSUBs or GOTOS. However, all the original BASIC commands are still there. Assembler programmers are in no way left out. AMOS and assembled code can be married with ease. Simply by loading your code into AMOS and using the CALL command, AMOS will immediately execute that code. AMOS also gives programmers the best understanding of how to get into Assembler, because as you program, you begin to understand how screens work, the rules and limits of BOBs and sprites.

AMOS is comprised of two modes.

Editor Mode is where the grunt work is done. This is a text editor with a few added extras. Along the top 10% of the screen are icons that serve tasks such as, string search, block copying and pasting, loading and saving programs, swapping between programs (multiple programs can be loaded into AMOS), etc.

Pressing Esc takes us to the second mode, Direct Mode. Here, we can look at the current default screen. The default screen is to AMOS programmers what the output window is to AmigaBASIC programmers. Running across the screen is a small text input window where we can enter commands to see the effect of a command's use or fine tune things, eg. where we want to position a BOB or find the right colour for a palette.

Here also, we can issue the command LISTBANK to show us the current list of banks that the current program is using. Banks are blocks of code or data that your AMOS program uses for BOB and sprite definitions, machine code, music code, and others. The different bank types are described below:

Sprites - Images to be used as sprites or BOBs

Icons - Images that can be pasted on the screen like tiles

Music - Tracker songs that can be played under interrupt

Amal - Interrupt animation language. Used for moving screens, BOBs, sprites, VU meters, joystick control, all under interrupt

Samples - Just that. Data that holds your sound samples to be played back through specified sound channels.

Menu - Data for custom menus

Chip - Chip memory workspace

Fast - Fast memory workspace

AMOS is very different to other languages in that it is considered an open language. This means that the 500+ commands that come with AMOS is not where it ends. You can order many EXTENSIONS which add extra commands to your AMOS system, or if you know machine language you can even add your own!

Contrary to the popular belief, AMOS will not write programs for you. Nor is it a construction kit. It is a serious and powerful development language. You still have to spend many hours designing and writing your code. Graphics and sound again take time.

Graphics from paint programs such *Deluxe Paint* or *Photon Paint* can be incorporated into your AMOS programs with ease. Therefore, AMOS is not a stand alone design package. It may sometimes need other design packages. I say sometimes - because of the power of the programming system, paint programs can be written entirely in AMOS. AMOS Paint is one example. So, graphics can be designed from within AMOS without the need of a commercial Paint program. However, you can never go past the tools in *Deluxe Paint* for quality design.

Music programs can be used to create soundtracks in your own programs. The currently supported music programs are *Sonix*, *Soundtracker 1.6* to *2.5*, *Noisetracker 1.0* to *2.0*, and *Protracker 1.0* to *1.1b*. If the tunes from these programs are saved as modules, they can be converted with a program sup-

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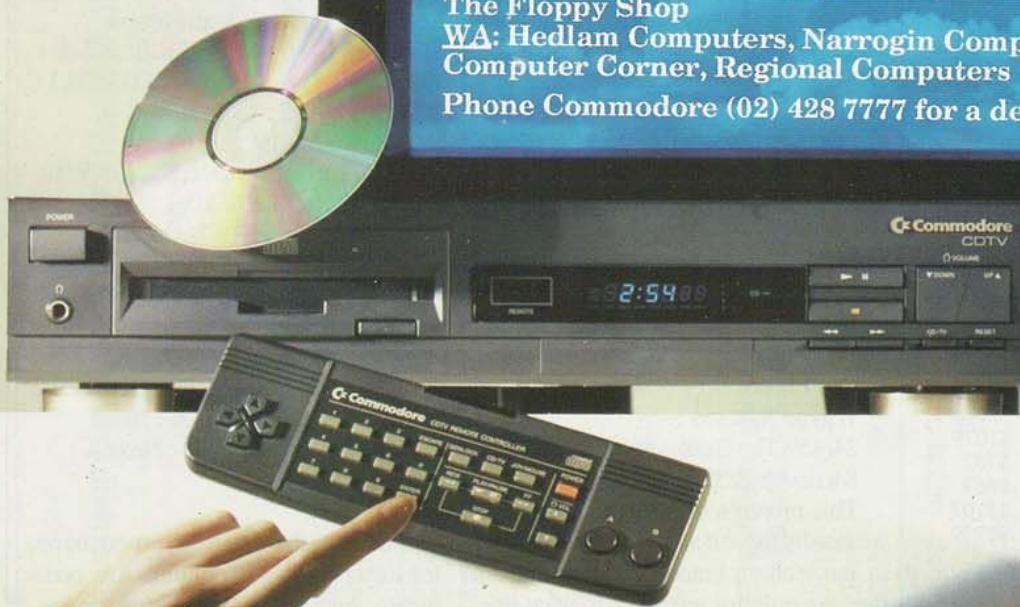
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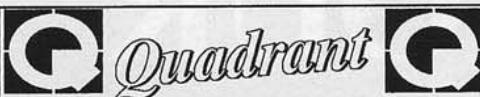
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plied with AMOS into its own format that can be loaded into the AMOS music bank. By simply issuing the command, MUSIC 1, your AMOS program will continue executing with your music playing happily in the background.

The music system itself is an intelligent one. If you already have a piece of music playing, you can re-issue the Music command again with a different number. This new number represents a new song in the music bank. AMOS will then suspend the current piece of music and start playing the new piece. When it either ends or you stop it your ORIGINAL piece of music resumes EXACTLY from where it was interrupted.

AMOS comes with many programs such as the Sprite Editor, Soundtracker converter, and others including a sample bank definer. All of these programs are written for AMOS, in AMOS!

News

* Amos is now up to Version 1.32. This update is available through any good PD list or from The Australian AMOS Club for club members only.

* An update for the compiler should be here by the time you read this. This update should have all bugs fixed and will compile programs containing AMAL banks.

* In just over a year in existence, AMOS sales have reached 5.5 million dollars worldwide.

* The music extension is being updated to be compatible with all commands in Protracker 1.1b and Med3.1.

Ten Liners

In this section, I will feature the best 10 liner programs that appear on the scene. If you think you have a ten liner that is hot stuff, drop it in the mail to:

Ten Liners,
Wayne Johnson
24/459 The Boulevard
Kirrawee 2232.

This month's offering is a program written by myself and Tex. Do not type in the leading brackets and numbers, they are only for reference to what line you are on.

(1)Cls 0 : Draw 5,0 To 5,10 : Draw 0,5 To 10,5 : Get Sprite 1,0,0 To 11,11 : Cls 0 : NA=2 : SPEED=20 : Gr Writing 0 : Load "extras:sprite_600/aliens/alien5.abk",1 : Hide On : Make Mask : Double Buffer : Flash Off : Get Sprite Palette : Cls 0

(2)RES: A\$="A: L RA=XM-128; L RB=YM-55; L X=RA+123; L Y=RB+50; P; J A; " : B\$="B: L R0=Z(300); L R1=Z(180); M R0-X,R1-Y,"+Str\$(SPEED*5)+"; P; J B;

(3)Sprite 1,0,0,1 : Channel 1 To Sprite 1 : Amal 1,A\$: For A=1 To NA : Bob A,Rnd(300),-20,2 : Set Bob A,0,%11111,%11100010 : Channel A+1 To Bob A : Amal A+1,B\$: Next : Amal On

(4)MAIN: If Mouse Key=1 Then Shoot : S=1 : X=Amreg(0) : Y=Amreg(1) : Ink 6 : Polyline 0,320 To X,Y+5 To 320,320 : Wait Vbl : Ink 0 : Polyline 0,320 To X,Y+5 To 320,320 : SC=SC-3

(5)For B=1 To NA : If Spritebob Col(1,B To B)=-1 and S=1 Then Gosub KLL

(6)Next B : S=0 : Inc X : If X=200 Then SPEED=SPEED-2 : X=0 : Inc NA : If NA<=8 Then Gosub PP

(7)If NA>8 Then Amal Off : Ink 11 : Text 120,100,"GAME OVER" : For A=10 To 1 Step -1 : Bell A : Wait Vbl : Next A : Repeat : Until Mouse Click=2 : Cls 0 : SPEED=20 : SC=0 : For X=1 To NA : Bob X,-100,-100,1 : Next X : NA=2 : Goto RES

(8)Goto MAIN

(9)KLL: Boom : Bob B,,10 : Wait 3 : Bob B,Rnd(320),-10,2 : SC=SC+25 : Ink 8 : Cls 0 : Text 10,180,"SCORE:"+Str\$(SC) : Return

(10)PP: B\$="B: L R0=Z(300); L R1=Z(180); M R0-X,R1-Y,"+Str\$(SPEED*5)+"; P; J B; " : For X=1 To NA : Bob NA,Rnd(320),-20,2 : Channel X+1 To Bob X : Amal X+1,B\$: Amal On X+1 : Next X : Return

Next month we will have more news, ten liners and a help column. Any comments, suggestions, programs, or hassles, are most welcome. □



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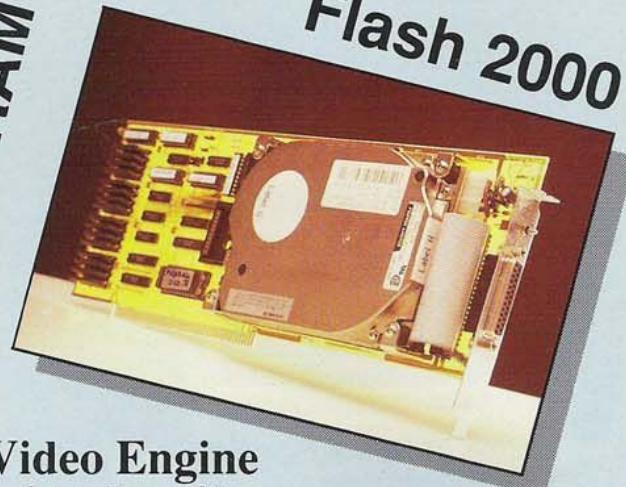
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Workbench Potpourri

A new regular look by various contributors at assorted useful Workbench and CLI tips, hints and general trivia. This month's column thanks to one Mr. K. Oss.

Memory management

Can't seem to fit enough programs in memory to make it happen? If you think they should have fit, read this and find out why they may not have!

There is a little man in there who looks after memory management and this happy chappy has a system to follow from which he will not deviate.

As an exercise, open a SHELL (or CLI) and type in and enter the command Listdf0: This command gives you some vital information on the size and status of files and programs on your disk in the internal drive (df0:). You'll see the directory (Dir) names with their protection status, usually —rwed, followed by the date and time they were last changed. There's also the program or file names followed by their size and other relevant information.

Now let's say you have a 512K machine and you multi-task two programs of 180k and 200k respectively. If you could see the menu bar at the top of the Workbench screen it would say you had about 120000 free memory give or take a little. That's 500000 - (180000 + 200000). Bear in mind it won't be this much because Workbench will be using some memory as well, plus any icons and/or windows you may have open on Workbench will also be chewing memory.

Now, let's try to run a program which requires 245k of memory. Yes I know! A quick look at the arithmetic above will tell anyone that this will not compute because there's only 120k of memory left. Not to worry, just close down the 180k program that's running and all will be well. We'll have 180000 + 120000 = 300k of free memory available and the mini memory manipulators in there will take care of that. If any of you were able to try a rough approximation of the above you will have found

that the m m m's didn't take care of it, did they? Instantly the derogatory thought flashes through the mushy grey matter... "Decrepit demi-droids, what's wrong now? The memory counter says there's enough room in there. Extract your droidal digits and do something." Uh-uh, sorry, you're asking them to byte off more than they can chew.

Why won't they run?

The problem is that they chew memory the way Nudge chews Mr. Kelly's food, in big chunks. When you began allocating your memory the happy chappy used a 180k chunk and a 200k chunk. Unfortunately a chunk is a chunk is a chunk and when either or both of these lumps are spat back out they remain separate 180k and 200k chunks. If you've multi-tasked a dozen or so smaller (50 to 60k) programs, then you will fragment the RAM and all the king's horses and all the king's men cannot put memory together again. To see what you've done, type and enter avail, you'll see something like...

Type	Available	In-Use	Maximum	Largest
chip	356014	167218	523232	180000
fast	205431	311457	516888	12358
total	561445	478675	1040120	180000

If you don't have a memory expansion you won't have the centre line (the fast memory). Notice though that although you have 561445 memory available in the above example, the biggest chunk is a 180k lump of chip. So in theory, a 182k program will not LOAD unless you reboot.

NB: Sometimes data (a dictionary for instance) which will not fit into RAM will fit when it's placed in a directory! The moral of the story is to try not to fragment your memory too much when multi-tasking.

Using SAY without the CLI!

Try this with a COPY of your workbench disk or a disk with the "say" program and icon on it. Open the utilities window by double clicking on its icon. Select the "say" icon (one click), then hold down the shift key and double click another icon (any one will do). Say, that's pretty good isn't it? The results of course would be far more lucid for those of you who selected a text file icon. Something from a word processing program or notepad perhaps.

Those who have not thoroughly perused their manuals may not know that they can print their files in a similar manner. Simply select the "printfiles" icon and hold down the shift key while selecting the icon of the file one wishes to print.

Other odd copy functions

Also with a copy ... and I stress, a COPY of your Workbench disk, try this. Double click the disk icon to open the window. Now hold down the shift key and select an icon (any one will do). Continue to hold the shift key down, select the disk icon and, while still holding the shift key and left mouse button down, drag the icon down the screen a small amount (1/8 inch or 3mm will do). Presto! I hope you used a copy because although the icon is probably behind the window now, sometimes it is erased from the disk.

You can perform a similar trick with directory icons. Open the "utilities" window and select a few icons using the shift key and left mouse button. Now continue to hold the shift key down and select and move the "utilities" icon. This time the icons from the "utilities" directory may be somewhere in the root directory window or then again they may have been wiped.

Now why would anyone want to perform any of the above exercises? And for that matter what type of person would even set out to discover such trivial tricks? Who knows, you'd have to be able to fathom the unfathomable and un-scoot the inscrutable to divulge that.

I know what you could do. Type in at

the CLI:-

 makedir df0:useless_information.

Now make up a text file of the above and save it to this dir. Here's something else you can add to it.

What's a Lamer

Have you ever wondered what a Lamer was? I used to. Can you even begin to conceive the exquisite agony I suffered, unable to sleep at night just wondering and worrying as to who or what a Lamer was. Why, I might even be one. Well, to save your sleep I can reveal that not only do I now know what one is, but I am one in both senses of the word.

Now I bet some of you smarties, sorry, delete that - some of you more erudite readers didn't know there were two senses of the word?

For your useless_information directory these are they:

1. One who modifies another's program/hack/file/document etc, to suit themselves, then takes all the credit for the results. Otherwise known as plagiarism.

2. And more ancient, it is the name the aborigines of North Queensland called white men when we first appeared on the scene. They spelt it Lamars, but it sounds the same. Seems it meant people from the spirit world.

Faster Fonts

FF (Fast Fonts) is found in the "c" dir and can be used to speed up the rate at which text is placed on the screen.

FF -o (that's the letter O not zero) turns it on and

FF -n Turns it off

If you're tired of the old Topaz font on your CLI or word processor etc. you can use FF to change it. The font you choose to use must be a plain eight by

eight pixel font so fancy ones like Diamond, Opal etc. won't do. There are a few fonts around which can be used though. Siesta and Clean are two that spring to mind. Boing!

Once you have them installed in your fonts directory, just type in FF clean.font or FF siesta.font (try adding this to your startup-sequence) to change to a fresher looking font. Both the above fonts are sans serif fonts, which I find are easier on the eye. You may prefer something else though so just type in ff and the name of your preferred font with the .font extension. If it's not a plain enough font you'll get a message stating "font width mismatch" and the ROM font Topaz will default. That is, nothing will crash. Little Lord Fontleroy (Lee-roy for short) will just replace whatever font was being used with the built in Topaz font and you'll just have to try again with another style.

That's it 'till next month!



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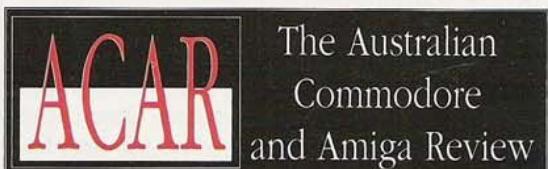
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For Beginners Andy's Attic

After sixteen installments of his popular CLI tutorial, Andrew Leniart is fresh out of CLI tips. So now we've expanded the brief and renamed the column to include hints, tips and general information all types. Over to you, Andrew!

In the last issue (in my last CLI column), I said that we would be looking into other public domain utilities which make things easier for the new Amiga user. This issue I intend to follow through.

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You will see this column expand in the future to include not just hints and tips for the CLI, but also to cater for the average Amiga user who uses the Workbench and utilities associated with it.

Topics like viruses will be covered in future issues in an easy to understand fashion, along with most other aspects of the Amiga as well. Write in and let us know what you would like to read about. Remember, this column is written with you in mind!

Directory Utilities - what are they?

How many times have you read an article which recommends that you use a directory utility to perform functions such as multiple deleting of files or similar because they save a lot of key fingering? Now while the statement may or may not be true, for the very beginner to computers the statement may serve to confuse, as it assumes that you know what a directory utility is and how to use it! If you don't, then read on and you may find yourself enlightened.

In simple terms, a Directory Utility ("Dir Util" from here on) is a tool which provides an easier way to use commands normally only available to you from the CLI (Command line interface). For example, if you wanted to see what commands the "C" directory of your workbench disk has, you would first need to open up a CLI and physically type in "dir c". Using a directory utility allows you to perform the same function, except that you use the more familiar mouse technique of 'point and click' to obtain the desired result. So in essence, a Dir Util is a Workbench alternative to the CLI!

Some people believe that Dir Utils are a pain in the proverbial and won't use them because they claim they are too restrictive, others swear by them and will open a CLI only as a last resort, so the only way to find out if they are for you is to try a couple.

These days, most Dir Utils go a lot further than just allowing you to utilize CLI commands from Workbench. Most have options which allow you to view IFF picture files, create slideshows with those files, play sound files and so on and some can even be configured by the user to perform tasks often needed.

So how do you decide which Dir Util is for you? Well, as you become more experienced with the Amiga, you will know what your particular needs are, hence will be able to make a decision based on those needs and from reviews.

A look at SID

For now though, I can personally recommend SID (a shareware product by Tim Martin) as I have found it very simple to use and highly reliable in the sense that there is not much that can go wrong when using it. The latest version of SID available that I know of is V1.06. Version 2.0 of SID was supposed to be released many moons ago, but after registering the product with the author and being told about a year ago that it was to be released in a month's time, I am still waiting. That is another story though, so getting back to the

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topic on hand.

SID may be started by running it from the CLI, or by double clicking its icon from Workbench. When you open up SID from Workbench, you get a screen divided into two halves vertically. This is where your directory listings are going to appear.

Down the bottom are little rectangular buttons (or gadgets as they are often called) with which you get to select the drive that the disk is in which you want to work with. Try this little example ...

Put a disk in DF0: and then click on the Button named DF0 with your left mouse button. You should end up with a directory listing of what is in the top root directory of that disk. Notice that files appear in white, while directories are red or orange depending on how you have your preferences set for Workbench colours. Change directories by double clicking on them and you can work your way around the disk in an easy and no fuss fashion.

But so much for looking around a disk. What else can we use SID for? Nearly everything that you would normally use the CLI to do. This is a great boon to people with only one drive, as the need for the Workbench disk to be inserted each time you try to use a command is no longer required. Nor is there any need to create a RAM disk if you wished to accomplish the same in the CLI.

If for instance you wanted to look through one of the earlier FISH disks which did not support icons, you would first need to set up a "c" directory in ram: as explained in earlier tutorials and use it to view the disks. SID or any Dir Util allows you to do this much more easily, takes lots less time and more times than not, is a lot less memory hungry than a RAM disk set up to give the same amount of flexibility with a single drive.

Running a program is a simple task of selecting the program on SID's window with a click of the left mouse button and then a click on the RUN gadget will usually get it going without much fuss. Reading document files is also a breeze with the "read" option, as is renaming them or moving them around from one directory to another.

Deleting files and/or whole directories no longer means typing in file names one after the other and can be done with a couple of clicks of the mouse button. If you have a disk with a lot of IFF picture files, then you can click on the "Slide" option and then select the files and click on "Show" and the pictures will be displayed in a slide show fashion one after the other.

I could go on for pages about the various uses of a Dir Util, like the ability to archive and unarchive files downloaded from bulletin boards with amazing ease, but I think that you should have a fair idea now as to what you can do with them.

An important thing to note with SID is that it is to a large extent a configurable Dir Util. This means that you can change it around to suit yourself. The way you do this is with a file SID uses called SID.config which you place in your boot disk's "s" directory. This ultimately means that it requires support programs to be able to use some of the functions that are not hard coded into it. Great thing about this though is that all of the support programs you will ever need are either PD or shareware!

Space does not permit a full explanation of how to set up this config file, so spending the time to read the documents that come with this product is essential to be able to take the full benefit of it. The docs are pretty much easy to follow, but if you find you have problems, feel free to write in to me at:

P.O. Box 1335

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and I'll endeavor to try and help you out through these pages.

Other DIR Utils

As I mentioned earlier, choosing a directory utility is very much a matter of personal taste and requirement. There are many different types available in the public domain libraries. Some are Freeware, others like SID are released under the shareware concept and of course you have your choice of commercial efforts as well. Here is a brief rundown on some of the more popular ones:

DISKMASTER - A commercial

product that works in much the same way that SID does. Easy to use and quite attractive and configurable. However, in my humble opinion, the price that is asked for this product does not justify when compared to SID.

DIRECTORY OPUS - Another commercial effort by a local Aussie programmer Nic Wilson, this would have to be one of the best efforts and value for money in the commercial circles. Some of the earlier versions had a few problems, but I recently saw one of the more recent versions and it was quite impressive. See the review by Andrew Farrell on this directory utility and others a few issues back.

DIRWORK - A shareware effort by Chris Haymes, another local Aussie programmer, would have to qualify as one of the easiest Dir Utils to use that I have personally seen. While not as powerful as some of the others mentioned here, it caters for most functions you would need and has the advantage of not having to do a lot of setting up before you use it. Just plug it in and away you go so to speak.

A final word

You can obtain public domain directory utilities from companies such as Megadisc and Prime Artifax. Commercial programs like *Directory Opus* or *DiskMaster* should be available from your local dealer.

Well, so endeth the tale of Directory Utilities. I hope that this has helped some of you understand what these utilities are all about. Contrary to popular belief, they are not only of use to those that are lucky enough to own hard drives. They are also very useful as a floppy drive work horse as well. Remember, the best way to learn more about anything is to begin playing with it. So now it's up to you.

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playing your favourite game when all of a sudden, the machine begins to reboot. No guru, no nothing, just a reset! I would be willing to bet that there are more than two or three hands showing out there. Let's see if we can't try and throw some pointers which might help you track down the problem.

I had this exact same problem for ages. Having the machine looked at by a local computer technician provided no joy as he told me that he could not fault the machine. He told me too he had re-seated the Agnes chip as they do tend to work their way loose occasionally, but it seemed okay and worked fine on his test bench.

Having taken the machine home and plugged it in, I used it for an hour and sure enough, bang, the screen goes white, disk drive starts spinning and my Amiga begins to reload as if I had just pressed Ctrl-Amiga-Amiga. A quick phone call to my local techie resulted in him offering to sell me his test bench which my Amiga worked fine on. So what to do?

Well, it appears that there are two main causes for the Amiga 500 to behave in this way. Here are a couple of tips which may help you sort it out.

NOTE: The following will void the warranty on your machine, so if it is still in warranty, take it back to where you purchased it. Also, it is not recommended that you try this yourself unless you have some technical hardware experience. To avoid possible damage to your Amiga, it is advisable to seek assistance of a qualified computer technician.

Keeping the above in mind, if you are still determined like I was to try these tips yourself, here's a quick run down on what to try.

One of the problems may be in fact that one or more of the chips inside the Amiga can actually work their way loose. The simple remedy to this is to open up the Amiga (making SURE you have the power plug removed from the socket for safety reasons) and then uncover the machine's mother board by carefully removing the metal shield. You will need a special screwdriver to undo the screws on the bottom of the Amiga, but I found a small allen key did the trick for me.

Look around and locate all the main large chips. They should have names on them, like Agnes (who incidentally seems to be the main suspect of this problem). Having located the chips, gently press down on all four corners of them taking note if they actually move when you press on them. Once done, carefully put the Amiga back together and see if the problem recurs. If, as with mine, the problem still persists, then there is a good chance that you have a faulty power supply. Attempting to repair a faulty power supply yourself is definitely NOT recommended. Although I occasionally dabble in a bit of hardware hacking myself, I did not try to fix my own power supply but took it to a qualified electrical technician instead. It's just too risky.

Anyway, what the problem turned out to be on my machine's power supply was that the solder points had dried out. My local techie just disconnected all the wires by melting the old solder and re-soldered them again.

This seems to be quite a common problem with Commodore's older brick power supplies, though I am told it does not occur with the newer ones as often. My machine was just over

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12 months old when I began to experience the reset problem and since having the power supply fixed, I have not experienced a single random reset. I included this information in the hope that it may help some of you people that may be at wits end trying to figure out why your Amiga is behaving in this strange fashion. Took me ages to find the solution.

Getting started with AmigaBASIC

Not all Amiga owners want to use their machine just for games. Some quite rightly purchase the machine with the intention of maybe learning to program with it. Most begin with a simple language like BASIC. There are some excellent publications on learning AmigaBASIC around and one particularly good one is *AmigaBASIC Inside and Out* published by Abacus. However while the tutorial style of this book will suit many users, it will without doubt, not be everyone's cup of tea. Certainly, the manual supplied with the Amiga for AmigaBASIC leaves a lot to be desired!

For this reason I have decided to review a book which is aimed at the ultimate beginner to Basic programming. I came across this book at a local K-Mart store and at about \$15.00, found it top value for money. Clive Prigmore's *Beginner's Basic* is the name of the publication and it is aimed at the ultimate novice to computers and assumes very little or no knowledge about computing in general by the reader of his book.

Clive begins at the very basics as can be seen by the title of the first chapter in his book, namely: "What is Computing?" The chapter explains to the user exactly what a computer is and how it works, tells the difference between software and hardware and gives examples to back up the explanations of each.

Being a ring bound book, it opens flat on a table which makes it a dream to use in this practical sense. Many topics are covered in a very easy to read style and include tutorials on things

such as REM statements, Print statements, loops etc and all tutorials are accompanied with simple diagrams to help get a point across.

Impressive to me was the way which the author gave assignments to complete at the end of each section, presenting you with a problem where you must design a simple program to solve it. Naturally, solutions to the problems are also supplied along with explanations of how you should have gone about reaching these solutions. The Index which is supplied at the end of the book helps in finding particular topics which you may want to review at any given time.

One drawback of this publication is the fact that it is not written for AmigaBASIC in particular, therefore minor modifications need to be made to listings occasionally to make a program work as the author designed it to. However, due to the nature of the very simple examples and/or explanations given, this rarely causes any problems.

My overall comment on this book is that it is a very good start to learning Basic in general and should help most beginners understand various things which may have been confusing them while trying to follow other similar publications.

There are numerous other tutorials available for BASIC, ask around at your local user group if you live near one as quite often they have members that are whizzes with this language. Megadisc, advertised in each issue of ACAR, have basic tutorials often that are quite comprehensive and easy to follow. There are PD disks with Basic tutorials on them available from PD libraries. It's all out there, you just gotta reach out and grab it by the throat!

Well, that's about it for this month. I hope you enjoyed the new style that this column has taken. CLI users can rest assured that they have not been forgotten and will continue to get a fair share of the attention of this part of our magazine. I thought it was time for a bit of a change and a fresh approach to this section and hopefully, you will agree. Please direct any feedback either to the

magazine or write direct to me at:

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The C64 Column

by Owen James

Working With Subroutines

Anyone who's done much programming on the C64 will undoubtedly have written some re-usable subroutines. You may have created a user interface that you've been particularly proud of, or a menu routine that's adaptable, or a disk management routine that can be used again and again. Re-usable subroutines make programming as easy as slotting the modules together.

This month we'll be taking a look at short, adaptable routines to add to your programming library. Even though they are designed to be sub-routines, I've started their line numbers at 10 to avoid confusion. They each contain a 'function header' similar to what you might see in C source code.

Device On-Line

This is a short routine that can be called from anywhere within your program before attempting to access a device such as the disk drive or printer. If the device is off-line, it will either ask the user to make it on-line, or cancel the request. The sub-routine returns a value of Z=1 if everything is okay, or Z=0 if the user has requested a cancel. ON-LINE CHECK expects variable D to contain the device number to check.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: ON-LINE CHECK
30 REM DESCRIPTION: MAKES SURE DEVICE IS AVAILABLE
40 REM MODIFIED VARIABLES: A$, S, Z
50 REM RETURN VARIABLE VALUES: Z=0 IF DEVICE OFF-LINE
60 REM *****
70 POKE 7
```

```
80,D : POKE 144,080 SYS 65457 : S=ST
90 SYS 65454 : S=S OR ST
100 IF S=0 THEN Z=1 : GOTO 160
110 PRINT "[HOME]MAKE DEVICE ON-LINE
AND PRESS C, X TO EXIT"
120 GET A$ : IF A$="" THEN 120
130 IF A$="C" THEN 70
140 IF A$="X" THEN Z=0 : GOTO 160
150 GOTO 70
160 RETURN
```

Text Slide

Here's an interesting way to present a line of text. Have your text stored in TE\$ and call this routine. It is set to slide in at the top of the screen, but with slight modification you could also pass it a vertical cursor position to use.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: TEXT SLIDE
30 REM DESCRIPTION: SLIDES A LINE OF TEXT ONTO SCREEN
40 REM MODIFIED VARIABLES: I, S, TE$
50 REM RETURN VARIABLE VALUES: NIL
60 REM *****
70 TE$ = "[CSR UP]" + TE$ + "
80 PRINT CHR$(147)
90 FOR I=20 TO 1 STEP -1 : FOR S=1 TO 35:
NEXT
100 POKE 211, I
110 PRINT TE$
120 NEXT
130 RETURN
```

Disk Error

Nothing will bring a program down faster than a disk error. The following routine is designed to be called after each and every disk operation to check that everything worked okay. If it finds a fault it will return a value of 1 in E. Your main program should then give the option of either trying again or exiting.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: DOS ERROR CHECK
30 REM DESCRIPTION: CHECKS FOR ERRORS ON THE DRIVE
40 REM MODIFIED VARIABLES: NU, ME$, E
50 REM RETURN VARIABLE VALUES: E=1 IF ERROR DETECTED
60 REM *****
80 OPEN 15,8,15
90 INPUT#15, NU, ME$
100 IF NU < 1 THEN 130
```

```
110 PRINT "[HOME]DOS ERROR "NU": "ME$"
120 E=1
130 CLOSE 15 : RETURN
```

Centre Message

Another text presentation routine. This time you feed it some text in ME\$ and it will centre it on screen. Just make sure that the correct vertical cursor position is set before calling the routine.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: CENTRE MESSAGE
30 REM DESCRIPTION: CENTRES TEXT ON SCREEN
40 REM MODIFIED VARIABLES: TA
50 REM RETURN VARIABLE VALUES: NIL
60 REM *****
70 TA=(40-LEN(ME$))/2
80 PRINT TAB (TA) ME$
90 RETURN
```

Exit

This one isn't exactly a sub-routine, so just GOTO it. EXIT will draw an interesting screen before resetting the C64.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: EXIT
30 REM DESCRIPTION: DRAWS A CLOSING SCREEN AND RESETS 64
40 REM MODIFIED VARIABLES: J
50 REM RETURN VARIABLE VALUES: N/A
60 REM *****
70 POKE 53280,6 : POKE 53281,14 : POKE 646,6
80 PRINT CHR$(147)
90 FOR J = 2024 TO 1024 STEP -6
100 POKE J, 224 : NEXT
110 SYS 64738
```

Wait For Disk

This is a great little routine that automatically senses when a disk has been inserted in the specified drive.

No need for a "Insert disk and press a key" message. It will expect variable D to contain the device number of the drive to check.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: WAIT FOR DISK
30 REM DESCRIPTION: WAITS FOR THE INSERTION OF A DISK
```

```

40 REM MODIFIED VARIABLES: A$
50 REM RETURN VARIABLE VALUES: NIL
60 REM ****
70 OPEN 15,D,15
80 PRINT#15, "M-R"; CHR$(30); CHR$(0)
90 GET#15, A$
100 IF ASC(A$+CHR$(0)) THEN 80
110 CLOSE 15
120 RETURN

```

Check WP Status

Here's a handy routine which will check if a disk is write-protected. GOSUB it before trying to write to the drive to avoid problems. The routine will expect D to contain the device number of the drive to check.

```

10 REM **** FUNCTION HEADER ****
20 REM FUNCTION NAME: CHECK WP
30 REM DESCRIPTION: CHECKS THE WP
STATUS OF A DISK

```

```

40 REM MODIFIED VARIABLES: W, A$
50 REM RETURN VARIABLE VALUES: W=1 IF
DISK PROTECTED
60 REM ****
70 OPEN 15,D,15
80 PRINT#15, "M-R"; CHR$(30); CHR$(0)
90 GET#15, A$
100 CLOSE 15
110 IFASC(A$+CHR$(1))=1 THEN W=1: GOTO
130
120 W=0
130 RETURN

```

Mail

A. Hay, of Lesmurdie WA, writes: "Dear OJ, I have been a reader of ACAR since Vol 1, 1984. I use CPM and am a FOG member (USA). I work with DBase, Wordstar and SuperCalc. I can convert to/from Superbase/SuperScript files into DBase/Wordstar.

"ACAR gave some coverage of CPM years ago. People do not know how

easy CPM is to use and how for only a few dollars (\$5.00 per disk) you can get heaps of useful programs. How about some more on the C128 and CPM?"

Yes, you're right. People don't know enough about CPM. Unfortunately, I don't own a C128 myself (anyone got a spare they'd like to donate?), so I'm not much help. If people have some useful information for us then I'd be quite happy to include it.

Neil Sanders, of Hurstbridge VIC, writes:

"Dear Owen, First I would like to congratulate you on an excellent column. I must admit it is the main reason we buy ACAR these days. I realize that most of the enthusiasts have switched to the Amiga, and articles may be hard to come by, but surely, more software reviews, or at least a more accurate

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D. Green

indication as to which games are also available in C64 format would not be too hard.

"Several overseas mags still find enough software to devote themselves entirely to C64 game reviews, with the U.K. mag "ZAP 64/AMIGA" recently dropping Amiga and becoming "ZAP 64". They obviously feel that there will be continuing software support for quite some time yet.

I realize that this has nothing to do with your column, but I thought I would take the opportunity to air my feelings on the subject."

Thanks for your comments. More software reviews would be great, but unfortunately there just isn't much in the way of new software being released. I'm happy to review anything that comes my way.

Glenn Jones, of Buderim QLD, has some useful information for us this month. Over to you, Glenn...

"I read the article in Vol8 No9 on Word Writer 6 and also in The Sunday Mail in the computer section on 18/8/91, and now I am getting it in late November, but where can I buy it? Neither article has mentioned that. In the article in The Sunday Mail it described the C64 as "The Computer That Won't Die".

"Before buying my MPS 1230, I had an MCS810. After nine months of continually taking the printer back because its head kept failing, K-Mart was nice enough to let me return it without any fuss. Also (no I'm not a huge fan of K-mart!) you can buy 50 5.25 inch disks for only \$24.95. Not bad for those shopping on a budget.

"Are there any decent bulletin boards in the Brisbane area? I have been thinking about setting one up myself, but without a hard drive the C64 is pretty limited by its lack of memory. My only alternative is to hook up other computers. I can lay my hands on a few Vics and maybe 2 or more 64s, but without information on how to do it I can't. Could anyone who's done it please write to me?

"Does anyone know of a fighter simulator better than F-14 Tomcat that allows you to play with a friend in a

different plane at the same time, and if there isn't I hope the software companies seriously think of this as an option for a new game.

"For those who are interested in tinkering with their user port and electronics, I have a simple little project below. It is a very simple program which controls a radio that you hook up to the user port.

"One thing to note is NEVER let the wires that you hook up touch each other directly or the inside of your computer. It could be fatal.

"In about a month I will start to learn all about solid state relays and I will keep writing in with different things to do, hopefully things like turning on lights and other such projects.

"Things you will need:

"1 Radio (2 1.5V batteries only),
"2 wires.

"Open your radio and remove the batteries, then connect wire on to the black (negative) terminal (you may just have to attach it to where the battery would normally touch the connection). Wire 1 is then connected to Pin 1 on the user port (see Figure 1). Then connect wire 2 to the red (positive) terminal on the radio to Pin 3 on the user port. Type in the program below and you will be able to turn your radio on and off from the computer. This strains your radio because it feeds it with 5V instead of 3V. A simple resistor (possibly 165 ohms) could relieve this. "At the moment it draws power from the C64. In a few weeks we'll look at using solid state relays to turn things on using their own power."

```
5 REM PIN 1 AND 3
6 POKE 56579,255 : REM
INITIALIZE USER PORT
7 PRINT "[CLR]" : GOTO 100
9 REM ***TURN ON RADIO ***
10 POKE 56577,1 : RETURN
20 REM *** TURN OFF RADIO ***
30 POKE 56577,0 : RETURN
60 REM *** CONTROL
PROGRAM ***
100 PRINT "*** RADIO CONTROL
PROGRAM ***"
110 PRINT" WRITTEN BY GLENN
JONES"
120 PRINT" 1) TO TURN RADIO
```

```
ON"
130 PRINT" 2) TO TURN RADIO
OFF"
140 GET A$ : IF A$ = "" THEN 140
150 IF A$="1" THEN GOSUB 9
160 IF A$="2" THEN GOSUB 20
170 GOTO 100
```

Figure 1 - USER PORT

A	B	C	D	E	F	G	H	I	J	K

I	*									

1	2	3	4	5	6	7	8	9	10	11

A1....NEGATIVE CONNECTION
C3....POSITIVE CONNECTION

Thanks for all the info, Glenn. Ask your local retailer if he can get *Word Writer 6* in for you. If you have no luck, try contacting the Australian distributor (Dataflow (02) 331 6153).

The Sunday Mail was right in describing the C64 as "The Computer that Won't Die". I seem to remember Phil Campbell making a prediction in the *Sydney Morning Herald* early this year that the C64 wouldn't see the year out. Here we are in December and the C64's still going strong. In fact, C64 sales actually improved by 30 percent. I think the only thing that's died this year is Phil's crystal ball!

I still get the odd letter about the MCS 810s and all of their problems. My second print-head has just died this week, less than twelve months after it was replaced. Will I bother to replace it yet again? I doubt it. With the money I've spent on it over the past 18 months I probably could have bought a printer that actually works how it should. Anyone want to buy a slightly used MCS 820?

That just about wraps up The C64 Column for another month. Keep those letters and disks coming in to me care of: The ACAR,
PO Box 288,
Gladesville 2111.

Merry Christmas to everyone, and may you all awake to find a Turbo Master CPU in your stocking on Christmas Morn. Catch you next year!

Contributors Wanted

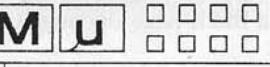
Although we have a solid core of regular contributors, we always welcome new authors to our ranks.

We prefer to receive "how-to" type articles, comparisons or "getting the most out of ..." tutorials. If you have an idea you would like to discuss, telephone our editorial office on (02) 879 7455. We can arrange to have an expanded contributor guide posted to you containing all the information you'll need to know.

In brief, we can accept material via modem, in fact, this is the preferred method. You can also send in a disk containing a clean ASCII text file - that is, one without any special formatting. Pictures, screen-grabs or illustrations should be included separately and clearly labelled. The most important thing to include is your daytime phone number.

The sheer volume of letters which pass through our office make it impossible to respond in writing. Normally, we will contact you by telephone if your contribution is accepted. Like most magazines, we cannot promise to return your original materials.

If you're not sure of the style of writing, try reading articles by other regular contributors and adopt a similar approach. This normally involves small doses of humour, plenty of easy to follow explanations and a clear view that most people are only beginners. Our editorial office can be contacted on (02) 879 7455 or Fax (02) 816 4714.

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The GEOS Column

by Owen James

New GEOS titles

In the geoNews this month are three new GEOS titles from NewSpeak Software.

First up is *geoTheo*, a thesaurus with over 10,000 cross references. *GeoTheo* is a desk accessory, making it accessible from any GEOS application. Cut, paste and search options are provided. *GeoTheo* sells for just \$US14.95.

Graphics Importer is another new GEOS title. This one allows graphics from all kinds of different formats to be converted to *geoPaint* files. I seem to remember a shareware program being available that does the same thing.

Anyway, *Graphics Importer* sells for \$US19.95.

InPrint is a large selection of enhanced printer drivers for GEOS. These new drivers offer variable print densities, double-strike print and even interpolation options (interpolation drivers offer a laser-like appearance to your dot matrix printouts.). Another cheap one at just \$US9.95.

NewSpeak Software can be contacted at Box 708, Draper, UT 84020.

Desktop Publishing

Over the coming months we'll be taking an in-depth look at Desktop Publishing with GEOS. I'll try to cover everything from design and layout, to getting the most from *geoPublish*. First up, a look at what desktop publishing actually is.

Before computers, if you wanted to produce a newsletter, book or manual you were forced to rely on a variety of different people to complete the various stages of production. You might begin with the text of the document. This would then need to go through an editing process, the layout would have to be designed, and some graphic artists might be called in to create some artwork to accompany the document. All text would have to be retyped into a typesetting

machine before the document could go to the printers. All up, this could be a time consuming exercise and quite probably beyond the budgets of most.

Desktop Publishing puts you in control of almost every aspect. Using the computer, you create and edit the documents, produce the graphics, and even design the layout. Getting professional looking output is then just a case of sending your files to a printing bureau.

So how does a desktop published document compare with a traditionally produced document? Very well indeed. Basically, though, the quality of the output depends on the experience and creativity of the user. Expensive equipment won't compensate for a lack of creativity. I've seen documents produced using nothing more than *geoPublish* on a C64 that look every bit as good as the ones produced using a \$5000 Macintosh, or magazines produced on an Amiga that would well and truly rival any traditionally produced publication. *Professional Amiga User* and *.info* magazines are testimony to this.

Desktop publishing isn't restricted to laying out simple pages of text. Advertisements, flyers and perhaps even graphic composition can all be a part of desktop publishing. Of course your style of layout would have to vary depending on the type of document. An advertisement, for example, would have to really catch the reader's attention and stand out from a page full of text, while a magazine article would have to avoid looking too busy so that it doesn't confuse the reader.

And now some general desktop publishing tips which we will be putting into practice using *geoPublish* over the coming months.

Most computer publishing programs offer an incredible amount of options for laying out text. Curved text, gradient fills, shadow and outlined text, and a vast amount of fonts. There is, how-

ever, a danger in having all of these features available, and that is the temptation to use them all in the one document.

I've seen newsletters that use a large range of fonts doing all kinds of weird and wonderful contortions around multi-coloured graphics. Needless to say the result is a cluttered and illogical page that resembles more of an advertisement for the desktop publishing program than a serious document.

Don't fall into this trap. Aim for unity in your documents. Don't use half a dozen different fonts, but at the same time don't let your documents become too boring. I usually stick to two fonts that are complementary and don't differ too greatly. If I'm using GEOS, these two fonts might be California and Roma. Keep one for the body of the text and the other for headings and sub-headings.

GeoPublish, as with most other layout programs, allows the use of templates. These are general layouts that you use again and again, saving you from repetitive steps. Use them to keep the layout of a multi-page document consistent.

Don't let the design of a serious article become too outrageous or too complicated. Remember that you're aiming for someone to actually read the text, not admire your layout creativity. This may not always be the case if you're creating an advertisement.

Avoid large sections of unbroken text. No matter how interesting your article is I doubt that anyone would even start to read it if it appears too daunting. Break the text up with graphics, sub-headings and quote boxes. And just while we're on the topic of quote boxes, use them to catch the reader's attention. Don't pick irrelevant or useless information to use, like "Disk two contained the file". Choose a general sentence to quote that would appeal to a 'page-flipper'.

Strike a balance between 'white' and 'grey' areas. By white areas, I'm referring to blank page. Make sure there's enough between your columns of text without being too much. Grey area refers to text area. Personally, I try to imagine I'm looking at the page from a distance and can only see grey and

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white. This way you can check if there is too much of either one or the other.

Over the next two months we'll take a look at putting all of the above into practice using *geoPublish* and other GEOS software.

LETTERS

Font Machine

Peter Hunt, of Doveton VIC, writes: "Dear Owen, I very much enjoy your GEOS column. I was very interested in the *Font Machine* and your *User Software Compilation* disk. Will it be available and if so how should I order one?" Yes, the disk is now available. See the C64 column elsewhere in this issue for more information.

Special interest

Ivor Laggan, of Sunnybank Hills QLD, writes: "Hello Owen, As a 128D/GEOS user it is nice to still find a magazine that carries at least some space for 64'ers and GEOS nuts. Keep up the good work for as long as possible!"

"Have you heard of any GEOS special interest groups in Australia? How about GEOS specific public domain software (apart from the small amount carried by Brunswick Publications)? What about a BBS similar to Q-Link in the USA?

"Couldn't you expand your GEOS column? It always seems too short to me. You must get plenty of questions on GEOS. Keep up the good work of reviewing GEOS utilities. There must be many people that are not aware of just what is available."

I haven't heard of any GEOS special interest groups in Australia. Are there any user groups out there who have a significant interest in GEOS?

There's a fair bit of GEOS public domain floating around, it's just a case of getting your hands on it. I only get a bit now and then sent in to me by readers. I'm hoping to compile what I have soon and release it on a disk. If anyone has any GEOS PD software they'd like to share please let me know!

As for the column's expansion, no

I'm afraid not. Firstly, I just haven't the time, and secondly there just isn't enough to write about. There isn't an abundance of new GEOS software being released, and there's only so many times you can tell people about using Paint Drivers. I'll cover as much as I can for as long as I can. Meanwhile, keep sending in the questions and suggestions.

RAM Expansion

Rod Gasson, of Reynella SA, writes:

"Howdy Owen, It is now possible to run a 17xx REU in conjunction with the TurboMaster CPU. There is a patch program available on CMD's BBS for this. Here are some rumors that I've picked up on some of my many BBS calls to the USA:

● A third party company (CMD?) is working on a 1581 clone, with Commodore's blessing.

● An undisclosed engineer is working on building an interface so that any hand scanner can be used on a C64.

● Hints of hooking up a CD-ROM to the C64/128 by using the SCSI interface connections of the CMD hard drive. There's been talk of a dual 3.5 inch drive for the C64, dubbed the Commodore 1582.

"Some GEOS programs you might be interested in:

"PLUS 21K - Formats and gives access to tracks 46-40, effectively giving 21k more storage capacity from your disks.

"DUALTOP - An alternative desktop that allows 3 drives to be accessed directly provided you have an REU. It also displays two disk directories on screen at once and has a fuel gauge to show available disk space".

Star NX-1000 and GEOS

"Some help for Dennis Connell (ACAR - Sept 91) in regards to his Star NX1000 printer and GEOS:

"To use the printer's inbuilt fonts etc is quite easy. Firstly I suggest that he obtain the EX800-3.3 printer driver. Using the 240dpi option his printouts will be near NLQ anyway, even with GEOS fonts. This is achieved through interpolation, and works very well. To

use the printer's fonts he must hold the printer's style and pitch keys down when he powers up the printer. He should then select whatever pitch/style he wants by pressing the appropriate buttons. When he does the printout he should select DRAFT output. The printer will do the rest. Unfortunately you can't use italics or any other enhancements, but it is ideal for simple letters etc.

"Also, I'd like to add that users with the Xetec (and most other) printer interfaces should always set the interface to transparent mode when using GEOS.

"Finally, I need help. Can anyone tell me what the difference is between a modem RS-232 interface and a printer RS-232 interface? The reason I'm asking is that my new printer has an RS-232 input as well as the Centronics input and a couple of the printer drivers I wish to try require the RS-232 connection. I've plugged my modem interface into the printer, but the printer/program refuses to acknowledge the other's existence. When I have the cable plugged into the modem and select 'PRINT', the rx/tx LEDs on the modem flash indicating that data is being received by the modem so the program is definitely using the same data lines as the modem interface, so why doesn't it work with my printer? Any ideas?

"PS: Please don't stop writing for ACAR because your articles are about the only thing that keeps me buying the mag. Without your columns there would be nothing for me to read. (I have no interest in Amiga stuff!)"

Thanks for all the info. In regards to your problem, the only thing I can think of is that either your printer or driver software isn't using the correct protocol. RS232 interfacing has always been a bit of a problem with the C64 because it doesn't have a standard RS232 port. Can anyone offer some other advice? (It could also be a cable problem. A modem will work happily with a simple 2-2, 3-3 and ground connection, whereas printers sometimes require more lines to be connected - Ed.)

That's it from me for this month. Until next time, you can drop me a line care of ACAR, PO Box 288, Gladesville, 2111. Don't forget to include a stamped, self-addressed envelope. □

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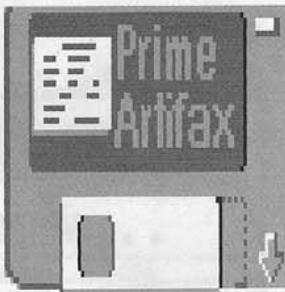
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CDTV

FeedBack

Send your CDTV letters to Phil Campbell, PO Box 23 Maclean NSW 2463. You can ask questions, make comments, or simply sound off about Commodore's new multi-media marvel.

Dear Phil, I understand that a conventional Amiga 3.5 inch disk drive can be fitted to the back of the CDTV. I own a CDTV, but before I commit myself to the purchase of another external drive, I have a few questions:

* Will standard Amiga programs boot up normally on the CDTV?

* How will they look and feel?

* Will the remote control that comes with the CDTV be sufficient to run the software, and if not, when will the CDTV add-ons be available?

Many thanks and congrats on a great column.

Peter Gleeson
Matraville, NSW

Ed: January will see the official release of the long awaited peripherals, though an "unofficial" keyboard is already available from Sydney's Hard Disk Cafe - see the news item below.

In the meantime, you can have a fair bit of fun - the joypad acts exactly like a mouse, and lots of software will autoboot from an external drive. Certainly, any disk running a standard workbench boots easily. Some copy protected games won't load though - it's a matter of trial and error.

The remote controller can simulate either a mouse or a joystick. In mouse mode it's a little slow and not as smooth as the genuine mouse, though everything works as expected. The "look and feel" is exactly like an Amiga 500 running through a TV modulator.

official unit a bit more flexible. And, of course, the regulation black colour scheme! For more information, phone the Hard Disk Cafe on (02) 979 5833.

Karaoke to your heart's content!

We've always known that the CDTV was really a laser Karaoke machine in disguise! Here's the proof. Singapore's JTS Electronics have released a catalogue of 17 CDTV compatible Karaoke song discs. Each disc features 18 classic song tracks - all you need to do is sing along!

Here's a sample of the selection from disc USA-1 ... Like a Virgin, Wake Me up Before you Go-Go, I Will Survive, Everytime you Go Away, It's too Late, You're So Vain, I Write The Songs, Close to You, Rainy Days and Mondays, I'll Never Fall in Love Again, Rich Girl, Baby I'm-a Want You, I Can't Help Myself, Hot Stuff, Mack the Knife, and Love is a Many Splendoured Thing.

For more information on turning your CDTV into a Karaoke, phone Karen at the Hard Disk Cafe on (02) 979 5833.

News

Japanese CDTV consortium announced

Commodore US have announced the formation of a CDTV consortium with Mitsui for the purpose of promoting and developing CDTV titles and players in Japan. Japan Electronics Publishing has also joined the group, with plans for the release of software for the Japanese domestic market. This is potentially a healthy development for Commodore, and bodes well for the future of the CDTV.

Plug in Keyboard from Hard Disk Cafe

Sydney's Hard Disk Cafe - at the moment the premier dealers if you're interested in CDTV - got tired of waiting for Commodore's official add on CDTV keyboard. So here's what they've done.

With Commodore's semi-official blessing, they've bought a batch of Amiga 2000 keyboards and modified them to plug straight into the back of your CDTV. Simple!

The keyboard costs around \$200, and lets you use your CDTV just like an Amiga. The only thing missing is the infra-red link, which should make the

Software slowdown on CDTV

The supply of new entertainment and educational software on the CDTV seems to have slowed to a trickle. Maybe this is the calm before the storm - let's hope so. Meanwhile, here at *Commodore and Amiga Review* we're still waiting for lots of the review copies we've been promised by Commodore!

More news next month.

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Phil Campbell's MINDSCAPE Entertainment

All the latest news and views from the world of entertainment

Happy Christmas!

Christmas time again, and this month we've got news and reviews of all the latest and greatest games for your Commodore. Fancy a game of World Cup Rugby? You'll find our review in the next few pages.

Or what about Snooker? *Jimmy White's Whirlwind Snooker* rates an ACAR STAR award - it's fast, smooth and lots of fun.

Utopia gives you the chance to build a fully functional model city in space - SIM-CITY with bells on!

You'll like Mike Spiteri's review of *Maupiti Island* too - he's been waiting for this one for months.

So Happy Christmas, read on, and enjoy...

New link with OziSoft

Keen eyed readers might have noticed that we haven't reviewed many games from OziSoft over the last few months. That's because they haven't been sending any!

Good news. New PR Chief Christina Caddy promises to get things on the

move again, with all the top new OziSoft products winging their way to us for review. You can look forward to seeing top titles like *Monkey Island* and *A-10 Tank Killer* on these pages soon.

ACAR Game Hints

Version 1.3 of the ACAR Hints and

Mandscape Competition

Ho, ho, ho! Mandscape are in a jolly little mood for Christmas, and they're giving away some goodies!

This month it's five copies of *Jimmy White's Whirlwind Snooker* looking for a good home. You're crazy if you don't enter, because as you'll see if you read the review in this issue, it's a top notch game. Just answer the following questions on the back of an envelope, and send it to:

Phil Campbell, PO Box 23 Maclean NSW 2463 before the end of the month, and who knows? You might be potting black in '92.



Tips disk is still available - a nice little stocking stuffer for Christmas.

Simply send a blank disk, a stamped, self addressed envelope (large enough for the disk to fit in) and a cheque for \$5.00 to:

Phil Campbell

PO Box 23

Maclean, NSW 2463

Your Hints Disk will be returned in the next mail.

Electronic Arts Christmas releases

Just as *Home Alone* has been released in your local video store, Electronic Arts are releasing the Amiga game of the same name! Good timing, and if it's anything like the movie it should be a fun title for Christmas.

For Role Playing fans, *Rules of Engagement* from Mindcraft hit the shelves last week, and *Shadow Sorcerer* from SSI is due any day now.

Might and Magic III will unfortunately just miss the Christmas rush. Watch out for some special deals on compilation packs too - *Indy 500* and *PGA Golf* are promised as a budget priced compilation.

Amiga games slow down

Without exception, software distributors report an alarming trend. The demand for Amiga games is dropping, while PC compatible market is going through the roof. Why? Well, one rea-

1. What's Jimmy White's current World Snooker Ranking?

2. How old was Jimmy when he won the English Amateur Championship?

3. What are two words that rhyme with SNOOKER?

4. What colour is snooker chalk?

5. How many balls are used in a standard game of snooker?

Easy, eh? Get those entries in as soon as you can, and please, please, please, don't send other stuff like letter and high scores in your competition entry envelopes - sure, it may save you a stamp. But it probably won't ever get opened!

son is that PC clones are getting faster and cheaper.

PC games are getting better and better too, with titles like *Wing Commander II* outclassing anything yet available in the Amiga marketplace.

Add the fact that Amiga fans are masters of the art of piracy, and you can understand why distributors are getting a little apathetic when it comes to supporting our favourite machine. What can you do about it? Simple. Instead of copying games from your friends, go out and buy something!

AMIGA Hints & Tips

Don't forget to send your Amiga hints and tips to Phil Campbell, PO Box 23, Maclean, NSW 2463. If you send your tips on disk with a stamped, self addressed envelope, we'll send it back with a copy of our magnificent ACAR Hints Disk absolutely free! Now it's on with the hints...

DRAGON'S LAIR 2

Michael Summers of Albion Park sent the following tips for this graphical masterpiece. "Simply type GET MORDROC DIRK (including the spaces) before starting the game to make things a little easier," says Michael. In fact, I think this code lets you run right through the game - a neat way to admire the graphics.

ATOMIX

Michael also says pressing the HELP key and typing TIME will freeze the clock in Atomix.

LEMMINGS

Here's one I wish I'd known while I was still addicted to Lemmings! Type FQUIGGLY on the title screen will make your lovable Lemmings suicide proof.

INTERNATIONAL KARATE +

If you're not the Bruce Lee type, try pressing the space bar when you're knocked down. This should make your fighter invincible.

Mandscape Stormball winners

Here are the talented winners of the Mandscape *Stormball* word game. Again, there was a terrific response.

First prize, a copy of *Stormball*, goes to Chris Tan, of West Ryde NSW. Chris found 305 words - some of them were pretty strange, but the judge decided they were all legitimate.

Second prize goes to Damian Steward, of North Hobart, Tas who travelled the entire Websters and Chambers dictionaries to come up with his total of 280 words.

Regular entrant - and previous winner - M.N. Quan, of Mt Pritchards NSW used The Official Scrabble Players Dictionary to scrape up 273 words for third place.

Deb Bowden, of Tanunda, SA, found 272, and Andrew Cooper of Picnic Point NSW found 262.

Congratulations to you all, and thanks to Mandscape for the prizes.

PRINCE OF PERSIA

Peter Chun of Westmead has an answer to poor Doug G. who was stuck in *Prince of Persia* in the October issue.

"I know how to beat Fatso," says Peter. "I find it easier to do all the fighting with the keyboard (use the cursor and shift for fire). When Fatso comes close to you strike at him and he will block the blow then in a fluid motion strike at you. When he strikes at you push up to parry his blow and instantly attack him. Just keep hitting shift and up in alternate goes and you should see a nice sword fight, eventually he gets hit, so you just wait until he comes close again and repeat the above."

The mysterious Dolly of S.A., also wrote with advice on the fat guy.

However, Dolly has got some more pressing problems of her own two screens later.

There's a ledge with a pressure stone on it to open the gate on the other side. To get to the other side you need to take a running jump, and you end up hanging by your fingernails.

Meanwhile, your shadow from level 4 steps on another pressure pad and closes the gate!

"Please help," cries Dolly in distress!

Finally, Dolly says that if you press shift-L you'll automatically jump to the next level. This works from level 1 to 4 only.

SUPERCARS

Andrew Gormly writes from Walkerville, SA, with what he promises are "some hot new tips." In *Supercars 2*, enter the name of player as "Wonderland" and player 2 as "The Seer" - both players will have full armour, the best engine and 99 of each piece of obliterative equipment including front and rear missiles!

In the original *Supercars*, put your name down as RICH and the game will give you \$200,000 to spend. ODIE will take you automatically to the 2nd level.

SPHERICAL

Serena Sandrin sent the following tips for Edmond Tatti, who was having problems with the dragon on level 19 of *Spherical*. To get past him, says Serena, you have to come to the room with full energy, collect the appropriate keys, fall on the dragon and then run off very quickly to the left, drop down, then collect the final key to get out of the room. Serena also added some passwords to get to higher levels: YARMAK, STORMBLADE, SKY FIRE, and MIRGHAL.

Now for the bad news. Serena is stuck on level 79! "I can't see what to do," says Serena. "There are no keys, no balls - nothing but a few steps and the dragon! Help!!!"

Let's hope someone can come to her aid!

Immortality

C64 Hints and Tips

Twas the month before Xmas when all through the house not a creature was stirring, not even a mouse (or a joystick for that matter). Slarti's Amiga was bung and the Ed wanted him hung, as the deadline had been and gone. But Parcom fixed the ailing Miggy, the damage superficial, and now twas the time for the Immortality Xmas Special!

That's right folks, it's that time of the year when the festive season goes into full swing, wallets are rapidly emptied, and ACAR columnists write silly intros. Well, you lot in readerland are obviously full of Xmas spirit(s) as Immortality has been completely ignored this month. Yep, we've reached an all-time record low of ZERO tips sent in! Due to this absence of all things pokey, in this month's SPECIAL we'll be taking an A-Z nostalgia trip back over the past year's pokes!

Here we gooooo.

KEY:

L - Infinite Lives
T - Disable Timer
N - Unlimited Energy

BATMAN

POKE 4806,173 - N
POKE 4866,173 - L
POKE 5060,173 - T

BATTLE VALLEY

POKE 16371,0 - L
SYS 25952

BLASTERIODS

POKE 11571,173 - L

CABAL

POKE 9905,189 - L
SYS 2097

CAULDRON II

POKE 36152,255 - L
SYS 32777

CITADEL

POKE 12848,0 - L

COMMANDO
POKE 14631,0 - L
SYS 2128

CREATURES
POKE 754,173 - L
POKE 46888,173 - N

DARKSIDE
POKE 26272,173
POKE 29005,173 - T
SYS 39096

DROPZONE
POKE 3060,173 - L
SYS 2064

FIRST STRIKE
POKE 38316,173 - L
SYS 2051

GALAXI-BIRDS
POKE 1505,173 - L

GHOSTS 'N' GOBLINS
POKE 2175,255 - L
POKE 3901,0 - T
SYS 2128

GHOULS 'N' GHOSTS
POKE 11615,255 - L
POKE 13860,165 - T

GOLDEN AXE
POKE 13150,173 - N

GRYZOR
POKE 29187,189 - L

HAWKEYE
POKE 6105,173 - L
SYS 23558

INDIANA JONES & THE LAST CRUSADE
POKE 32552,173 - L

MENACE
POKE 8980,234
POKE 8981,234 - N
SYS 2080

MIDNIGHT RESISTANCE
POKE 10169,173 - L

MOTOR MANIA
POKE 8646,255 - L

SYS 8000

NINJA WARRIORS
POKE 2727,173 - T
POKE 15905,0 - N

NIPPER II
POKE 51114,173 - L

OPERATION WOLF
POKE 36007,165 - T
SYS 16960

PARALLAX
POKE 5796,96 - L

RED HEAT
POKE 3108,165 - L
POKE 3358,165 - N

RETROGRADE
POKE 50374,173 - N

RICK DANGEROUS
POKE 27931,173 - L
SYS 2057

RYGAR
POKE 9551,165 - L
POKE 4050,77
POKE 4055,77 - T
SYS 2325

SEUCK
POKE 19214,0 - L
SYS 16992

TIGER ROAD
POKE 5749,164 - L
SYS 14848

TIME MACHINE
POKE 31615,173 - L

TUSKER
POKE 35016,173 - L

XENON
POKE 26356,173 - L
SYS 20048

Ah, those were the days, eh? And if you readers don't wanna be reading nostalgia every month, get some hints 'n' tips to me NOW at: Slartibartfast, 4 O'Connor Drive, Bray Park, NSW 2484.

Entertainment Letters

ENTERTAINMENT MAILBOX
PO BOX 23,
MACLEAN NSW 2463

Flights of Fancy

Dear Phil, I read Mick Thompson's praise of *FA/18 Interceptor* in the October Entertainment Mailbox.

I agree. In fact, one evening a couple of months ago I was sitting in my favourite eatery reading one of the good British Amiga mags when I came across Electronic Arts address in England. So I wrote them a rambling letter in my illegible hand on the back of a menu telling them how great *FA/18* was, what was wrong with all the other air combat games and begging for a sequel with more missions.

I received the enclosed reply within a fortnight, telling me that Bob Dinneman had moved on, but advising me of the imminent release of a new Amiga flight sim, *Birds of Prey*, with a choice of forty different aircraft and twelve mission types. Top marks to Electronic Arts for giving such prompt attention to a coffee stained epistle from the other side of the world! I'll certainly be watching out for the reviews of their new offering.

Peter Howard
Slade Point, Qld

Ed: Thanks for passing on the copy of EA's letter, Peter. *Birds of Prey* sounds impressive, but will it have the old "Bob Dinneman magic"? What Electronic Arts didn't mention was that Bob has been hard at work at another company producing *JETFIGHTER II* for the world of PC compatibles - on a fast 386 with VGA graphics it's absolutely superb, with all the old magic of

FA/18 and a heap of exciting missions. In the mean time, EA's local office reports that *Birds of Prey* will be released in mid January.

Heaps of Hints

Dear Phil, I have four lever-arch files full of photocopied hints from the UK magazines. They're only filed alphabetically and I haven't listed or DB'd them etc but if you need something that you think you've seen then give me a call. I only get *Amiga Format*, *Amazing* and *Info* these days but there's all the *Amiga Computing*, *AUI* and a couple of others up to about a year ago, so if it's a golden oldie type hint I may have it!

Andy Dunn
9 Parkview Ave
Salisbury Downs, SA 5108

Ed: Thanks for the offer, Andy. I've taken the liberty of including your full address so interested readers can contact you direct. By the way, if anyone does write to Andy, make sure you include a stamped, selfaddressed envelope.

Proud 64 Owner

Dear Phil, I'm a C64 owner and proud of it! I was wondering if there is a way of copying cassette games? If there is could you please tell me? Also, is there a way of getting into the listing of a game? Are there any cheats for *Wonder Boy*, *SDI*, *Star Wars* and *Turtles*? Before I go Phil could you please print this letter?

Philip Stevens
Melbourne, VIC

Ed: Yes, there is a way to copy games. No, I won't tell you. That would encourage you to make pirate copies. Yes, you can get into the machine code listing of a game with a suitable machine language monitor cartridge. But if you're expecting a simple BASIC-style listing, forget it!

There are cheats for the games you mentioned - maybe someone will send some in. And finally, yes, I will print your letter. But I'm blown if I know why.

Shorthand Ninja Fan

Dear Phil, Would like to know how to get past the fan in *Last Ninja 2* as I keep getting blown away. Also a poke or cheat for *Elite* game. Best mag in Aussie land, keep up the good work. Thanks.

Ainsley Travers
Parap, NT

Ed: Your letter looks like was written in hurry. Lots of words left out. Okay. Will ask readers for help in *Last Ninja 2* and *Elite*. Glad you like mag. Over and out.

Eye Problems

Dear Phil, Just recently I brought the new game *Eye of the Beholder* and have been doing extremely well in it until I got to the 7th level. In this level I've bribed the Drow but the problem is that I can't open the spider doors, can you please give me some help with this. If you can't help could you please pass it onto the Dungeon or Hints and Tips and Wonderful Bits in your great mag?

M. Gravatt,
Wyerba, QLD

Ed: Okay readers, can anyone help with a solution to this spidery problem? Let us know as soon as you can.

Happy New Reader

Dear Phil, I have read ACAR for only two issues (Sept and Oct '91). It may not be as colourful as the European magazines and it may not review as many games but the reason I changed was the price. It is the cheapest computer magazine on the shelves! Maybe it is because of all the adds you have in the mag but I like reading them. Plus, I can enter the competitions and hope to win something, as the European mags are always three months late. The articles in your mag aren't just about games but about putting the Amiga to better use, things that bring out the REAL power of the Amiga.

To Philip Mayer who wishes to re-

main loyal to the humble C64, why are you seeing red because the C64 has a younger sister (brother) who is better than it? You must face the fact that the Amiga and CDTV are the future for Commodore. It is like a car - new, more powerful models are developed and you upgrade with them. If you want to stay

true to your origins then you will buy another Commodore. Eventually there will be no more software developed for the C64 and you will make the leap to Amigaland simply because an 8 bit computer is not enough. Companies are always out to make profits and the Amiga and CDTV are going to do that for

Commodore until the next new thing that will make money.

Peter Chun, Westmead, NSW

Ed: Glad you like the mag, Peter. And I agree totally with your analysis. Even so, we'll keep covering the C-64 as well as we can.

Hall of Fame

Send your authentic high scores to
Phil Campbell, PO Box 23
Maclean NSW 2463.
Please mark clearly whether your scores
are for C-64 or Amiga.
And remember
NO CHEAT MODES ALLOWED!

AMIGA

ACTION FIGHTER 132,530 Robbie Baker
ALERT 359,700 Robbie Baker
ARKANOID 1,052,610 Steven Walter
AMAZED 130,500 Chris Turnadge
BAAL 134,250 Davo
BATTLE COMMAND 334,200 Peter Cain
BATTLE SQUADRON 99,999,999 (c) Amos Burbidge
BEYOND ICE PAL 67,826 (c) Chris Turnadge
BIO CHALLENGE 29,000 Aaron Sanderson
BLOCKOUT 85,281 Stephen Lark
BOMBJACK 236,430 Steven Walter
BUBBLE + 276,850 (c) Chris Toyne
BUBBLE BOBBLE 2,124,640 Katrina Renzenbrink
BUGGY BOY 113,260 Powerhouse Nick
CAR-VUP 484,122 Happy Hacker
CHASE HQ 5,504,010 Angelo Augustis
CONT. CIRCUS 4,815,390 Dolly
CRAZY CARS 86,547,220 (c) Adam Wade
CRAZY CARS CHALL 3,000,000,000! Michael Summers
CRYSTAL HAMMER 43,847 David Thompson
CYBERBALL 475,000 David Marsh
DENARIS 53,900 Peter Evans
DIABLO 1,490 Timothy Johnson
DRAGON NINJA 246,400 Rod Matthews
DOUBLE DRAGON 124,630 James Knight
DOUBLE DRAGON II 187,830 (c) Damien Carsburg
EDD THE DUCK 5,820 Andrew Gormly
ELIMINATOR 246,570 Greg Munro
EMERALD MINE Level 23 (d) Timothy Johnson
FLOOD 6,455 Embah Beaton
GEE BEE AIR RALLY 307,466 Kamikaze Andy
GIANA SISTERS 56,567 Matthew Keath
GODS 3,779,072 (c) Natalie Buxton
GOLDEN AXE 44.5 Damien Carsburg
HYBRIS 1,826,075 Embah Beaton
IK+ 189,900 Damien Carsburg
IMPOSSIBLE MISSION 66,380 Diane Unwin
INDIANA JONES L.C. completed Phillip Nicoll
INDIANAPOLIS 500 38.53sec/233.58mph Dolly
INERTIA DRIVE 18,790 Timothy Johnson
KARATE KID II 54,000 Michael Summers
KLAX 4,396,040 Happy Hacker
LEATHERNECK 86,500 Shane Crosland
LIVE AND LET DIE 96,520 Mereke Beaton
MAJOR MOTION 50,658 Owen Webster

MENACE 996,481 Kamikaze Andy
MIDNIGHT RESISTANCE 302,550 Oops! Lost your name!
MINDWALKER 306,214 P Schumacher
MOUSETRAP 71,977 Davo Rich
NARC 180,800 Damien Carsburg
NINJA MISSION 35,141 Aaron Sanderson
NITRO 261,000 (c) Damien Carsburg
NUCLEAR WAR (c) Paul Rucci
N. Z. STORY 546,695 Embah Beaton
ONSLAUGHT 16,179 Andrew Gormly
OPERATION THUNDERBOLT 53,000 Andrew Gormly
OUTRUN 26,331,122 (c) Benjamin Moen
OFFSHORE WARRIOR 626,345 Jacob Booth
PACMANIA 3,250,140 (c) Amos Burbidge
PINBALL MAGIC 332,390 Tracey Chilcott
PINBALL WIZARD 1,029,360 Gordon Stone
PIONEER PLAGUE 35,412 Keir Sooby
PLUTOS 299,000 Davo
POPULOUS 347,990 Michael Summers
PORTS OF CALL \$3,654,944,000
Status 1033 Troy Clarke
POW 612,865 David Thompson
RAINBOW ISLANDS 9,999,999 (c) Timothy Johnson
RAMPAGE 504,175 G. Wilson
RICK DANGEROUS II 25,470 Andrew Gormly
ROBOCOP 375,520 Michael Summers
ROTOX 183,050 (c) Faye Doherty
SIDEWINDER 904,350 Sharon Eslay-Eades
SILKWORM (Hell) 4,079,300 (c) Iceman
SILKWORM (Jeep) 622,500 Daniel Everton
SKWEEK 3,375,400 Faye Doherty
SPACE ACE 22,140 Neville Clarke
SPACE HARRIER 210,855,250 Maverick
SPEEDBALL 17,650 Amos Burbidge
STARWARS 5,722,822 C. Mingos wave 33
STRIDER 175,350 Neil Young
SUPER CARS 17 races Maverick
SUPER HANG-ON 25,042,850 David Worthy
SUPER OFF-ROAD \$350,000 Andrew Gormly
SUPER WONDER-BOY 87,190 Jason Stubbings
SWIV (HEL) 1,536,620 (c) Michael Gane
SWIV (JEEP) 223,720 Damien Carsburg
SWORD OF SODAN 403,500 Steven Begley
TEEN.M.N.TURTLES 546,600 (c) James Leeken
TEST DRIVE 131,076 (c) Jordan Noglet
TEST DRIVE 2 658,992 Michael Summers
TETRIS 35,920 Michael Summers
TETRIX Level 232 Stephen Lark
THE RUNNING MAN 123,500 Daniel Rucci
THUNDERBLADE 336,520 Rod Matthews
THUNDERCATS 522,300 Scott Southurst
TOWER OF BABEL 25,934 (c) Stephen Lark
TURBO OUTRUN 100,260,819 Matthew Mantle
TURRICAN 1,735,100 (c) Adrian Jenkins
TURRICAN II 2,585,700 (c) Matthew Duggins
TV-SPORTS BASKETBALL 176-60 David McKinney
TV-SPORTS FOOTBALL 189-0 David McKinney
TWINWORLD 24,640 Carol Love
TYPHOON 54,255 Owen Webster
VIRUS 16,576 Michael Summers
WHIRLIGIG 28,210 Nathan Allen
WINGS 426 kills Jason Main
WONDER BOY 291,350 Maverick
XENON II 1,107,280 (c) Mark Lark
ZOOM 67,051 Steve Jones

COMMODORE 64

ALLEY CAT 1,101,150 Simon Mitchell
ALTERED BEAST 251,250 (c) Adam Blanch
ARKANOID 822,200 The Joker
BATMAN 473,230 John Nunes
BATMAN-THE MOVIE 1,087,080 Michael Bradley
BANGKOK KNIGHTS 39,600 Josh Smith
BLOCK OUT Level 6, 20,236 M Carter
BOMB JACK 521,820 Adam Wade
BUBBLE BOBBLE 6,963,930 (c) David Gavrilovic
BUGGY BOY (c) 153,000 Adam Wade
CABAL 175,600 The Joker
CHASE HQ 11,366,900 (c) Happy Hacker
CHASE HQ II 29,100 (C) Adam Wade
DAVID'S MID MAGIC 669,150 The Joker
DOUBLE DRAGON 35,820 (c) Atul Prasad
DOUBLE DRAGON II 255,190 Nick van Heeswyk
DRAGON BREED 496,870 Happy Hacker
FAST BREAK 136 to 9 Chris Byrne
GHOSTS AND GOBLINS 325,600 Adam Wade
GHOULS AND GHOSTS 558,110 (c) Adam Wade
GIANA SISTERS 287,100 (c) Adam Wade
GRYZOR 211,200 Julian Aslett
H. MARADONA Level M N. van Heeswyk
HAWKEYE 207,650 Adam Wade
IKARI WARRIORS 308,300 Jason Aldridge
INT. KARATE 139,300 Paul Millward
LAST NINJA II 21m30s (c) David Carter
MIDNIGHT RESISTANCE 28,540 (c) Dennis Pike
NEMESIS 1,633,200 Adam Wade
OPERATION WOLF 776,350 Winston Diaz
OUTRUN 16,952,780 (c) Adam Wade
PARADROID 32,250 Simon Mitchell
PAPERBOY 103,100 (c) John Nunes
PIRATES 109/100 Adam Annen
POWERDRIFT 864,940 (c) Adam Wade
QUE-DEX 639 Chris Byrne
R-TYPE 1,890,210 Atul Prasad
RAINBOW ISLANDS 2,293,820 Adam Wade
RAMPAGE 180,000 Adam Wade
RICK DANGEROUS 66,280 Adam Annen
ROBOCOP 237,170 (c) Adam Wade
ROLLING THUNDER 417,280 Adam Wade
SALAMANDER 235,300 Paul Millward
SHINOBI 664,372 (c) Winston Diaz
SILKWORM (Hell) 965,200 (c) Adam Blanch
SILKWORM (Jeep) 244,500 (c) Adam Blanch
SKATE OR DIE Freestyle 22,095 The Joker
STREET FIGHTER (c) 168,900 Adam Wade
SUPER CYCLE 223,040 Andrew Gormly
TARGET RENEGADE 330,450 C. Byrne (clocked)
TEST DRIVE 36,144 (c) John Nunes
TEST DRIVE II 249,543 (c) A Batroc
TETRIS 25,706 (326 lines) A Batroc
THE TRAIN 9,500 (c) Adam Annen
THUNDERBLADE 1,734,040 Troy Morrison
THUNDERCATS 269,500 Joseph Wright
T.M.N.TURTLES 878 Adam Wade
TRAZ 54,560 Dave and Sue Upton
UNTOUCHABLES 70,230 Simon Watford
WIZBALL 607,420 (c) Simon Mitchell
WONDERBOY 560,320 Happy Hacker

Scores followed by (c) indicate that the game has been completed.

GAME GUIDE - SPECIAL FEATURE

Shadow of The Beast

The Full Solution

The night is dark and stormy - and a beast is on the prowl! Can you stop him? Yes, if you follow these step by step instructions from GRAHAME WELSH.

You're frustrated and annoyed. After all, *Shadow of the Beast* is a great looking game - parallax scrolling, amazing graphics, great sound effects, and it cost you heaps of money.

But you just can't get past the first level - right?

Well, I'm here to help. Just follow these instructions exactly, and you'll make your way right through the game. You'll still need some skill, but with this guide you'll know exactly where to go and how to get there.

First, go left until you come to a tree. Two red arrows will appear - push up to enter.

Level 1: The Tree Complex

Go right until you come to a ladder leading down, go down it. Go left and down the next ladder. Go right and down the ladder. Go down the ladder just to the left. Go left across the bridge and go down the ladder. Go right, destroy the purple people with swords, then go down the ladder. You'll now find two ladders leading down. Take the left one. Go left until you find a demon holding a ball and breathing fire. Simply punch the ball until destroyed. Congratulations - you now have the power beam.

Go back up the ladder, then go down the right ladder. Go down the brown ladder just in front of you. Go left and down the ladder. Go left then, jump the gap and take the gold key. Go back to the brown ladder, go up, then up the other brown ladder, left and up the ladder, left and down the ladder. Now touch the device in the right hand corner, then go up the ladder and right until you come upon the creature with two

heads. Punch it a few times to kill it.

Still with us? Good. Now keep going right, cross the bridge, and be ready for the green men to attack. Take the ladder leading up. Go left and up the ladder, then left again, avoiding the row of moving eyes. You'll soon come to a gold key. Take it. Go right, down the ladder, right, down the ladder. Go right, up the ladder, kill the snail - sorry, there are no Defender pellets, you'll have to use something else!

Go right and down the ladder. Go left past the blue demons and red dragons, until you come to a ladder going down. Go down it. Go right, down a ladder, right, until you see a ladder going down - go down it.

Go right, down a ladder, left until you find the dead dragon head inside cage - go down the ladder just before it. Go left, down, left, then up the ladder, left, down the ladder, left, up the ladder. Go left until you find a flask surrounded by a barrier - touch it to obtain power punching.

Go right, down the ladder until it stops, right, past the pods with blue lights - ignore the ladder and continue right until the music changes and you meet a dinosaur. Just punch it - your power punch will automatically be used - until it is destroyed.

Go right, through the door, then climb the metal ladder in the well all the way to the top to finish the level. And that's level one completed!

Level 2. The Castle approach.

This level is fairly simple! Just keep going right destroying everything in your path and eventually you will come to the castle, but DON'T GO IN YET!

Keep going right until you come across a torch on the wall - take it by jumping in the air and touching it. Now go back to the door and push up to enter.

Level 3. The Castle.

Go left and up the first ladder you see - just to the left of where you start. Go right, down the ladder. Go right, up the long ladder. Go left, walk off the edge, keep going left, then up the ladder with the monster clinging to the wall. When you reach the top go right, destroying all the chests to gain more strength until you come to a spanner on the ground. Touch it to pick it up. Go left, past the ladder leading down, and continue left past the table. Go down the ladder near the wall. Go right, then down the ladder. Go right, walk off the ledge, left, and off the next ledge. Now go left, cross the bridge with two spiders hanging from the roof, then down the ladder. Go right, and down the ladder. Then go left until you come to a chest. Smash it open to get the laser gun.

Go right until you come to a panel controlling an impassable electric field. Walk up to the panel, pull down on the joystick and press the button. This will activate the use of your spanner, turning off the electric field.

Go up the ladder. Go left, off the ledge, left and up the ladder. Now go right, and down the ladder. Go left, down the ladder, then right until you meet a three headed dragon. Shoot it with the laser a few times and it will die. Go right until you come to the open door and a mask on the floor. Touch it to pick it up. That's level three completed.

Level 4. Shadow Lord's Lair

This one's extremely simple! Just keep flying right until you come to the end of level guardian. Blow the hell out of him.

Level 5. Beast Lord's Encounter

Much too easy! Once again, just keep running right until you come to the Beast Lord himself. To beat him, just keep punching him in the foot and he will eventually die.

Enjoy the ending picture. Congratulations - you've made it.

Utopia

Feel like some pioneering? Phil Campbell takes on the challenge of building a whole new world - Utopia.

"In Xanadu did Kubla Khan a stately pleasure dome decree, where Alph, the sacred river, ran, Through Caverns measureless to man." Yes folks, some genuine culture. The opening lines of Coleridge's Kubla Khan, as he dreams the impossible dream of heaven on earth. Paradise. Utopia. He wrote the poem some time last century, and in the intervening years we haven't really got much closer. Technology, yes. But Utopia? No.

Here's your chance to do better. It's *Utopia*, a great new game that lets you build the perfect world from the ground up. In many ways, *Utopia* out-sims *Sim City* - the aim of both games is similar, and so is the method. But *Utopia* features a classy 3-D view of your simulated world and it's eye-poppingly detailed space age buildings.

You are Commander Pacharelli, Leader of the colonisation of the Omicron-Kappa planets orbiting the Rhebus sun. What the colony will become is entirely in your hands. You control the economy, you control the building program, you control the colony's industry and defence programs. In essence, for the group of four hundred men and women who arrive at Omicron-Kappa with you, you control the quality of life.

Will you succeed in building Utopia? Or a second rate hell-hole in the back blocks of the galaxy? It's up to you.

Your screen displays a small slice of the planet's surface in isometric perspective. There are already three or four buildings, including a large control centre, an oxygen-generating life support plant, living quarters and a hydroponic garden - the bare essentials for life on a hostile planet. The section you can see seems to be hovering in space. Beside it, there's a cluster of four arrows, and a



panel of control icons. The arrows let you scroll around the area allocated for your settlement, and the icons control the game.

Your budget at the start of the game is 500,000 credits, and the first thing you need to do is build. Click on the "building" icon and a selection screen appears - row after row of colourful buildings to choose from, including hospitals, multi-level dormitory blocks, oxygen plants, chemical factories, mines, power stations, flux-pods, laser turrets, and space ports.

Before you start building, there are some practical rules. Flux pods act as energy storage centres, and all buildings must be erected within twelve squares of a pod. Plan where you put them carefully. Naturally, you'll need at least one power station to feed the pods and the surrounding buildings. The Chemical plant extracts fuel from the ground and pumps it to Fuel storage tanks. But before you build your Chemical plant, you'll need to choose the best location. Area maps show location of mineral and fuel deposits, so make sure you consult them first.

You won't really need a Security Office until your population grows bigger. Nor a laser turret or missile base - you're not likely to be attacked by alien forces until your colony is well established. Even so, forewarned is forearmed.

Okay, let's build. I choose a hospital from the selector panel, then point and click on the screen to indicate where it should be built. Everything is mouse controlled, and works smoothly. Rome, however, was not built in a day, and

neither are hospitals on far flung planets. First, a scaffold appears. The building doesn't appear for a number of months, as measured by the on-screen clock - in real time, it's a matter of minutes.

Naturally, hospitals don't work without staff. And that's your next decision. How many colonists will you allocate to work in the hospital? Aim for a workable balance, because labour is in short supply, and you'll need workers for the Chemical plant and other industries. If you play your cards right, your colony will soon have a thriving economy.

Utopia is a great game. All the simplicity and charm of *Sim City*, with prettier graphics. I'm not sure yet whether it has the same depth and long term appeal - time will tell. But at this stage, it's fascinating. Your space colony simply bustles with energy, full of colour and tiny detail.

Soon there will be space cruisers hovering around the skies, tanks trundling around the ground, lights flickering on and off and radar dishes scanning back and forth across the skies - a living, breathing city. Is it Utopia? Not quite - the quality of life rating in my little city is currently running at 78%. But I'm working on it.

RATINGS

Graphics: 86%

Sound: 75%

Gameplay: 92%

Overall: 89%

Distributed by Mindscape

(02) 899 2277

RRP Amiga \$79.95

Jimmy White's Whirlwind Snooker

There's nothing more relaxing than a nice game of snooker. That is, unless you always lose, says Phil Campbell.

A game of snooker at my mate Al's place always has the same result. He wins. I lose. Regular as clockwork. Naturally, I put it down to his mis-spent youth - too much time hanging around seedy pool-halls. Or maybe he practises a lot. Who knows?

So I figure it's time I polished up my game.

Jimmy White's Whirlwind Snooker is the perfect way to do it. It's an Amiga simulation, billed as "the fastest, smoothest snooker game ever created".

Snooker-sims are by no means new. The equations that govern the game are the stuff of high school physics text books, and the graphics are simple - all you need is a bunch of coloured balls. So it's no surprise that the software remnant bins are littered with relics.

Jimmy White's Whirlwind Snooker is different - I promise. Programmer Archer Maclean has produced a simulation that really feels real. A few zany touches - like balls that spring to life and poke out their tongues - add a touch of spice that makes this game stand out from the crowd.

The game opens to a rousing piano rendition of a Scott Joplin rag - perfect music for a pool hall. You can choose to play a friend, or one of three computerised opponents, Tom, Dick and Harry. When you've paid your dues you can challenge the great Jimmy White, currently holding third position in the World Snooker rankings. White is fast, accurate and very popular, a crowd favourite since winning the English Amateur Championship in 1979 at the record age of 16 years.

So let's play ball. It's my break. As in the real world, the gaps between the balls in the frame are minutely different

every time, so the results of the break are unpredictable. I simply close my eyes and hit as hard as I can. Balls spray everywhere, with a satisfying cascade of clickety-clicks. So far, so good.

Cue action is mouse controlled, with a series of icons arranged across the top of the screen.

From here you can set top spin and side spin, select the power of your shot, adjust your aim, change your point of view, and even chalk your cue. Here's a hint - if you forget the chalk, attempts to curve the ball will be embarrassing.

The screen display is dynamic, with fast changing views from every possible angle. It's hard to describe, but for the moment, imagine a camera attached to the end of your cue. With the camera "focused" on the cue ball in the centre of the screen, a click on the mouse button will effectively rotate the view of the

table around the ball. Confusing at first, but after one or two games you will realise it's a fast and intuitive way to move around the table and set up shots.

In the end, the proof of the pudding is in the eating. And the fact is, I make exactly the same mistakes playing *Whirlwind Snooker* as I do in the real life game. The brown ball is sitting right in front of the corner pocket. Unmissable. But I miss. My long shots down the table are even worse. And I never can quite judge the angle for that fine cut into the centre pocket. Just like at Al's place - which means, of course, that *Jimmy White's Whirlwind Snooker* is a very accurate simulation. This is a game that not only sticks to the rules of real world snooker - it follows the laws of physics to the letter. It's fun to play, impossible to master, and takes up very little space in your loungeroom. All in all, a top class game.

ACAR STAR RATINGS

Graphics: 92%

Sound: 88%

Gameplay: 94%

Overall: 93%

An almost-perfect simulation.

Distributed by Mindscape

(02) 899 2277

RRP Amiga \$79.95

Not available for C64





The Rugby World Cup has come and gone. But it's certainly not forgotten. Relive Australia's glorious victory with Phill Campbell.

These days, Australia's moments of sporting glory are few and far between. The Rugby World Cup victory over England was a welcome exception. But let me warn you, playing Rugby can be hazardous to your health. Just ask Nick Farr-Jones about his knee injury in the quarter-final. Or ask me.

My arm is sore, my elbow is stiff, there's a dull ache in my shoulder. And they're all from playing Rugby The World Cup. An Amiga sporting simulation, this game has been at the top of the European game charts for weeks, capitalising on World Cup fever. Now it's here - a whole month after the final, but better late than never.

Let me confess. I'm not really the Rugger type. After all, this is a game for gentlemen - guys with the style and poise of a Nick Farr-Jones or a David Campese. During the World Cup I have had to learn the technicalities of the game from my wife, who was raised in a family of some refinement.

Tackling I understand. And passing seems sensible. But I can't fathom all the excitement about kicking to touch - and the interminable scrums and line-outs leave me cold.

Rugby - The World Cup has got the lot. Even better, it's got a booklet full of good, clear instructions that make the game make sense. Add the fact that you can play against either the computer or a friend in either a single game or the whole World Cup competition and you've got the makings of a well rounded package.

The screen shows a view from above the field. You can only see a small section at a time, with the view scrolling smoothly back and forth with the action. A small "overview" diagram overlaid on the top corner of the screen shows the whole field, with players appearing as colour coded dots.

After the kick off, it's a free for all. Players scramble everywhere, though if you look closely you'll notice one has a small black bar above his head. He's your man. Waggle the joystick and you'll see him move around in response. With a little luck he may even come up with the ball - and from there on in it's a matter of ball skills and good management.

My first few moments were glorious. My player grabbed the ball, and we set off down the field at top speed, evading the English forwards easily. Near the tryline, I pressed my fire button to offload

the ball - it was picked up perfectly by another player, whom I then pushed neatly across the line. Beginner's luck.

My conversion was good too - the screen shows a side-on view, with the player in the foreground and the goal posts in the distance. A cross hair darts back and forth across the screen, and the trick is to press the fire-button in the split second that it spends between the posts. Tricky, but I managed it. That's the good news. But what about the scrums? Let me quote from the manual.

"Once a scrum has been entered, move the joystick left and right as fast as possible to win control of the scrum. The ball is then passed out to the scrum half." Easy? No way. Fortunately, my joystick is substantial - a Star-Cursor, with industrial strength micro-switches. My arms, however, are not. Sure, I won a couple of scrums. But more often than not even my best efforts saw my team pushed aside by the opposition. How much high speed wiggle-waggle do they think I can take?

If you've still got a passion for Rugby after countless late night hours in front of the telly, check it out. As for me, I'm retiring hurt at half-time.

Ratings

Graphics: 76%

Sound: 78%

Gameplay: 73%

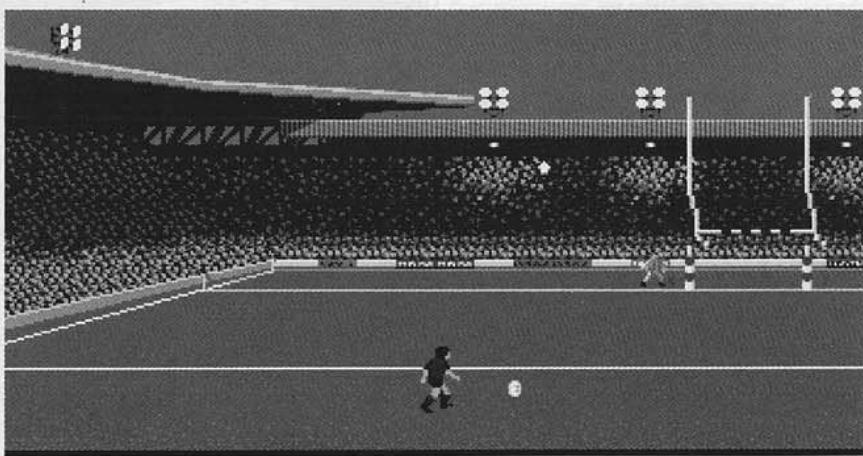
Overall: 75%

Distributed by Questor

(02) 662 7944

RRP Amiga \$69.95

C64 \$49.95



Star Goose

I guess you could call me a Space Veteran. Ten years service, fighting off countless hordes of aliens. Been there, done that. Along the way, though, there have been some particularly memorable campaigns.

Star Goose was one of them. And now the game has been re-released in the Pactronics budget line-up.

In the game you play the part of a space mercenary, scouring the surface of long forgotten planets looking for rare jewels. Your ship is a Star Goose class fighter - an unusual machine, the Star Goose never gets far off the ground. Its bulbous hull hovers just above the surface, the control pod protruding from the front like a gooseneck. Not elegant, perhaps, but easy to manoeuvre, and fast.

This time, we're on the Supply Rings of Nom. No place for a family holiday, this is a synthetic, welded landscape covered with metallic hills, valleys and channels. Rotating gun turrets are everywhere, spitting bullets and armour piercing missiles at an alarming rate. But the huge, coloured jewels you can find here are famed around the universe.

Every so often I find a refueling



depot. The Nomans certainly have style. Not for them the fuel pump at the local Ampol service station - instead, I have to fly through a tunnel collecting huge fuel pods shaped like eyeballs. Eerie. And it's the same if I need more ammunition, or if I want to replenish my shields.

Star Goose is a captivating game. Not unique, by any means - it falls neatly into the category of "vertically scrolling shoot-'em-up" - but rich in detail, and brilliant in execution.

Graphics are finely detailed, and they have an unusual "cuteness". The alien ships are just as radical in design as the

Star Goose - one variety looks just like a bloated budgie.

And the eyeballs in the refuelling tunnels? Absolutely the best eyeballs I've ever seen in a computer game. They glisten, they stare, and they give menacing looks, all in such rich 3-D shading that you feel like sitting back a little and catching them as they pop through your screen.

Sound effects are run-of-the-mill. There is only so much you can do with a game like this, and it has all been done. The explosions erupt nicely, the engines roar convincingly, and everything else sounds just as you would expect. Satisfactory, of course, but not as novel as the visual effects.

The game is fun to play, and quite addictive. I liked it the first time round, and I like it as a budget priced re-release.

QUICKSHOT RATINGS

Graphics: 78%

Sound: 71%

Gameplay: 79%

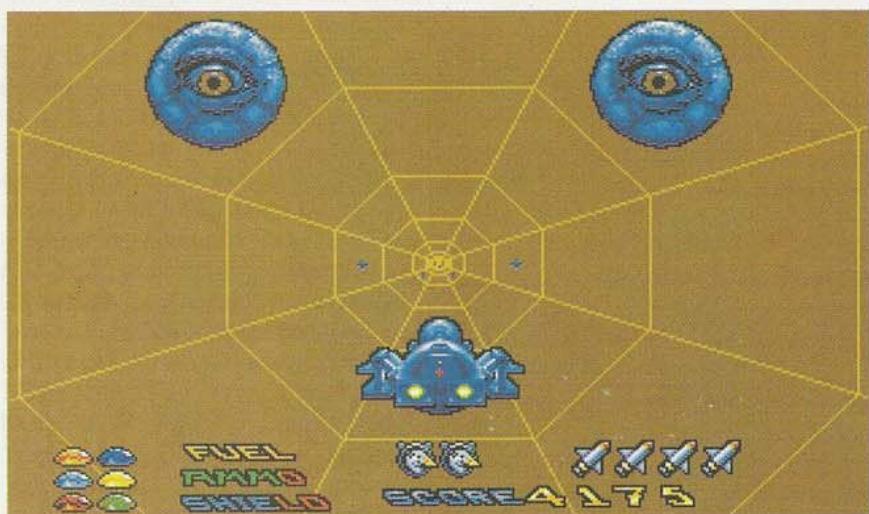
Overall: 77%

Distributed by Pactronics

(02) 748 4700

Budget Series

RRP Amiga \$12.95



Maupiti Island

Michael Spiteri has been waiting for this one, and it's just as good as he expected.

Jerome Lange returns to solve another engrossing mystery, this time on a tropical island. Some of you may be already familiar with the French private eye's previous case in *Mortville Manor* (Realm's Adventure Game of the Year in 1990), in which he had to quiz the inhabitants of an old mansion about the death of a friend.

In this game, we are not sure if the victim is dead or not (she might die in the course of the game - if you don't hurry up and do something!).

The story so far goes something like this.

The year is 1954, January. Jerome is in Madagascar visiting an old friend when he receives a letter from Max (the Mortville butler maybe?) in Japan ("Come and join me!" it says).

So, Jerome borrows his friend's yacht and sets sail with two crew members (Captain Bob and seaman Anton). They get as far as the Indian Ocean, but decide to take refuge on a remote island called Maupiti, as they fear a hurricane is near.

The hurricane passes.

Meanwhile, a fishing boat (containing captain Bruce, seamen Roy and Chris) arrives at Maupiti during the night, and parks itself next to the yacht. The following morning, Madame Maguy (owner of a small hotel on the island) informs Jerome that a young girl named Marie was kidnapped the previous night. So begins the quest - to rescue Marie!

Add Madame Maguy's three employees (Sue, Anita, and Juste the handyman), and we have a nice long list of possible suspects. It doesn't take long to scan the immediate areas (the beaches, garden, pond, and hotel), and after some quick interviews with a few of the characters, all sorts of rumours, stories and predictions fly around!

Sue and Anita are best friends and tell each other everything, or do they? Anita had a fight with husband Bob on the night of the kidnapping - was it over Marie? Is it true that Maguy is a madame in the literal sense, and that Marie maybe was a reluctant employee? What is the significance of the statue in the

pond? Why do certain inhabitants have masks in their rooms?

These are just a few of the many, many questions you will ask when you play this engrossing adventure.

Maupiti Island has all the features that made *Mortville Manor* such a good game. These include great graphics (improved!) and super sound effects to really build up a haunting atmosphere.

On screen animation is also good, especially the attention to detail (such as the fly buzzing around the room, the ceiling fan spinning, mice and rats scurrying across the ground).

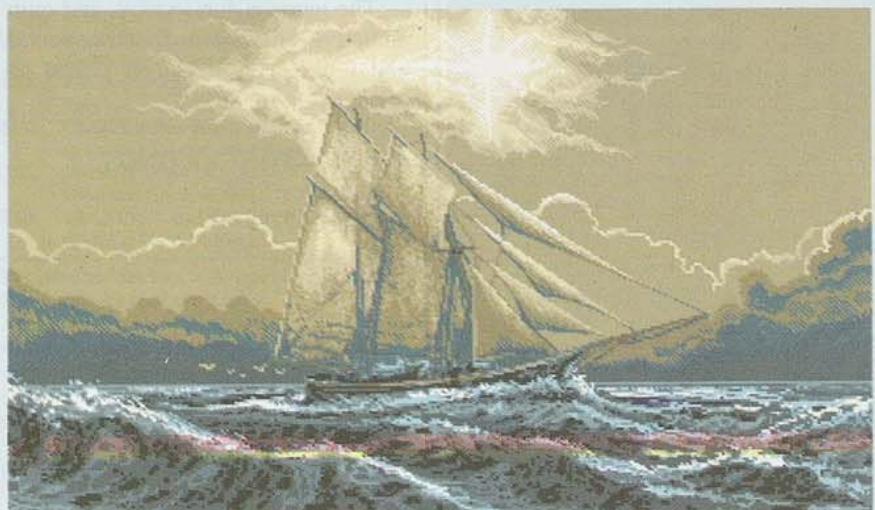
The background music changes from place to place, and also changes if you complete a major action.

Character interaction has been greatly enhanced since the days of *Mortville Manor*. The speech synthesis is still there (French accent and all!), and the spoken words appear on the screen if you didn't catch what was said (or you can repeat it). As well as quizzing a character about certain events you have encountered, and other people, you can memorize what was said, and use it to quiz and argue with other characters when contradictions arise.

You can also bribe, bash up or offer objects if all else fails. This gives you almost complete realistic detective interaction.

The game is completely mouse driven, with pull down menus used to move around, manipulate your inventory, execute actions (select an action then point the pointer somewhere on the screen), and interact with characters.

You can also follow characters (but tread carefully, it's egg on your face if you get caught!). A map of the island appears when following characters. Actions available are somewhat limited, but adequate (close, eat, look at,



observe, search, open, push, put, raise, read, sleep, smell, sound, take, turn, wait).

The playability factor is very high. There are many things that can be opened and closed (remember - be discreet!), and hundreds of items to sift through (many red herrings!). All items when handled are displayed in the bottom right corner of the screen.

Also displayed is a clock, and a list of characters present. Your energy also appears, and this will deteriorate without sufficient food or rest. The game can end quite abruptly if you're not careful. You can die in quicksand, you can get locked in your own cabin, and you can get murdered if you get too close to solving the mystery without being discreet!!

This said, there are also many possible endings, and there is a random element in the game to add that extra level of difficulty.

The game however, does have some niggling technical drawbacks. The main one is that it takes a bit too long to load up characters for interviewing, and this tends to slow the game. It doesn't look like the game is installable on a hard drive, either.

Overall the graphics are crisp and colourful, and the sound is melodramatic and convincing. The plot is intriguing and very challenging, with riddles and puzzles everywhere!

Gameplay is also very good. As an adventure, I rate it as one of the best releases this year - but I am biased towards it because I liked *Mortville Manor* so much (and *Maupiti Island* is much better!).

Atmosphere: 95%
Graphics: 87%
Sound: 87%
Playability: 88%
Plot: 95%
Lasting Appeal: 85%
Overall: 89%
Verdict: Compelling stuff!
Recommended!

Distributed by Pactronics
(02) 748 4700
RRP Amiga \$49.95



So cute it'll make you puke.

That's the delightful promise of Rodland, a saccharine sweet platform game about a cute little fairy princess searching for her "Mom" who's been trapped in the castle of a nasty ol' boogey man.

The colours are bright, the music is breezy - and the gameplay is absolutely addictive. Aaargh!

Once you start playing you just can't stop, and it's incredibly embarrassing if someone comes into the room. Rodland just isn't macho!

Mind you, there is a bit of violence. Your princess makes good use of her little magic wand, the "Rod of Sheesanomo." As she meanders along the platforms and glides up and down the ladders she meets up with all manner of nasties - a good wallop with the wand, and a left and right thrust on the joystick send even the meanest of them crashing over her head in a judo throw that even Big Arnie would be proud of.

Watch out for the sharks though - they look faintly ridiculous cruising around the platforms, but don't be distracted. Let them get too close and little princess will waft away in a cloud of vapour.

There are bonuses to collect, and flowers to collect through 40 rather awkward levels.

There are time limits, too - if you don't clear a level in time, the nasties switch into "meany mode" making things even more difficult.

The fact is, Rodland is a darn good game. Graphics are delightful, with a nice variety of backgrounds, and plenty of awkward platform patterns. The princess and the nasties are nicely drawn, and everything works together well.

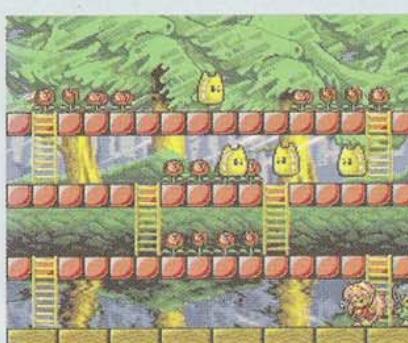
Just make sure you keep a barf-bag handy, though - puking on the keyboard is not recommended.

QUICKSHOT RATINGS

Graphics: 84%
Sound: 81%
Gameplay: 87%
Overall: 86%

Distributed by
Mindscape (02) 899 2277

RRP:
Amiga \$69.95
C64 Disk \$49.95
Cassette \$39.95



MICHAEL SPITERI'S

Adventurer's

Realm

by Michael Spiteri

Merry Christmas!

Welcome everyone, to the world of Adventurer's Realm, the only computer column in Australia dedicated to serving the adventurers and role players. If you're stuck in any adventure game, send a stamped self addressed envelope for one of our free hint sheets, or if that doesn't help, send in your problem to:

Adventurers Realm 12 Bridle Place
Pakenham Vic 3810.

I'm also interested in your views and rumours concerning adventure games, plus any hints and tips you have available to contribute.

If role playing games are your arena (*Pool of Radiance*, *Eye of the Beholder*, etc), then role-playing-game freako Kamikaze Andy is available in his Dungeon to answer your queries.

Write to him (but don't ask him for hint sheets) at:

Realm's Dungeon P.O. Box 315
Maddington WA 6109.

Whenever you write to the Realm, and expect a reply, you must enclose a stamped addressed envelope (requests for hint sheets without these will be ignored).

You may pick up to four different hint sheets. Just send a stamped addressed envelope to: Free Hint Sheets 12 Bridle Place Pakenham Vic 3810.

Hint sheets available:

Zak McKracken, Maniac Mansion, Indy, Zork 1, Zork 2, Zork 3, Bards Tale I, Bards Tale II, Bards Tale III, Guild of Thieves, Jinxter, Pawn, Fish, Uninvited, Deja Vu, Hampstead, Hitchhikers Guide, Faery Tale, Borrowed Time, Never Ending Story, Dracula Pt 2, Hobbit, Adventureland, + Clever Contact Complete Listing.

Free Hint Sheets

Official Adventurers Realm Hint Books

The first *Official Adventurers Realm Hint Book* is still available, containing detailed hints and tips for over 40 adventure games. A bargain at only \$9.00 from newsagents across the nation.

Keep your eyes open for the second *Official Adventurers Realm Hint Book*, containing hint and tips for a newer range of adventure and role-playing-games. Available shortly!

Realm's Nostalgia Competition Official Results

What are the Top 5 All Time Classic Adventure Games as voted by readers of the Realm? Well, here they are:

1. *Zork I* (Infocom)
2. *The Pawn* (Magnetic Scrolls)
3. *Hitchhiker's Guide to the Galaxy* (Infocom)
4. *The Hobbit* (Melbourne House)
5. *Leather Goddesses of Phobos* (Infocom)

The Winners:

Leanne Hood, Deeragun, QLD (C64 Adventure Game Pack - Scott Adams Adventure 1 - 12)

Shane Robertson, Toukley, NSW (C64 Adventure Infocom Classics Zork II & Zork III)

Andrew Gormly, Walkerville, SA (Amiga Arcade/Adventure *Weird Dreams*)

Samantha Hayhoe, Port Augusta, SA (C64 Adventure Game Pack *Wolfman/Frankenstein/Dracula*)

Runners up:

Jenny Lam of Arncliffe in NSW and Nigel Cayzer of Grafton in NSW both win a copy of the first *Official Adventurers Realm Hint Book*.

Realm's Chit Chat

D.M. Stacey of S.A writes... "I am an on/off reader of Adventurer's Realm but take great interest in the general chit chat and game problems. One thing that disappoints me is that you do not have any hint sheets for AD&D games."

MS: *There are quite a few games in the AD&D series, however your request has been taken in, and I'll try and include a few AD&D games in the list. First one to appear will be Pools of Radiance, hopefully available next issue.*

David Lear of Flagstaff Hill, S.A writes.... "I would like to thank you for the Clever Contacts section. I have had occasion to use the services of a few of them and have always received quick helpful advice."

MS: *Another pat on the back to all the unpaid Clever Contacts across the nation who are doing a tremendous job ... keep up the great work!*

A list of Clever Contacts is available from the the Realm.

Simon Parker of Bayswater, Vic, writes.... "I would like to say that I agree wholeheartedly with the review of *Bards Tale III* (by Andy Phang) in the July edition of ACAR. I too waited in anticipation for the day the program would appear on the Amiga, after spending countless enjoyable hours playing *Bards Tale I* and *II*. And I also felt very disappointed when I ran the game. It is slow, clumsy, and doesn't have a very good feel at all. But, having bought the game, I suppose I will just have to finish it anyway. I mean, it is a *Bards Tale* after all. I have just lost a lot of enthusiasm for the game."

MS: *It's unusual in the computer entertainment industry for sequels to be let down (especially on the Amiga!). Still, maybe the next addition to the Bards Tale series will fix up some of the many problems of the third edition.*

David Couche of St Agnes writes.... "Just thought I'd let you know that the swapping of old games has got off to a good start. Michael Walsh of Horsham (another of your regular readers) and I have swapped *The Pawn for Lurking Horror*."

MS: *Great news! If you have any old adventure games which are no longer available, and you'd like to swap them for other old adventure games, send your request to the Realm!*

Scott Saunders has the original *Wheels of Fire* compilation pack (Amiga), and he is willing to swap this pack for an original version of *TV Sports Football*. Scott's address is 9 Breakspear Street, Gracemere, QLD 4702.

MS: *Ehh, since this is the only place where you can swap games, we'll let these arcade ones skip through. Phil Campbell...if you are listening, can you include a Swap Games in your entertainment section for those who prefer wasting time playing arcade style games? (PC: No, I'm happy to leave it to you!)*

Aaron Upcroft of 24 Ryan St, Balgownie NSW 2519, writes... "I have a C64 and I desperately want adventure games. I cannot find any shops that supply adventure games, and the ones that do have none for the C64. Could you please put me in touch with shops that you know of that have adventure games for the C64?"

MS: *I'm afraid it's true, C64 adventure games are slowly beginning to disappear. There are a few advertisers in this issue that stock C64 games. Could someone please write to Aaron with some spots to find software?*

Clever Contacts

Three new clever contacts this month: Felicia Holmes of 23 Parmelia Way, Craigie, WA 6025. Felicia can offer help in: *Champions of Krynn, Death Knights of Krynn, Heroes of the Lance, Zak McKracken, Faery Tale, Kings Quest II, III, Police Quest I, II, Space Quest III, and Quest for Glory I and II*.

Paul Andrews of 10 Sovereign Street, Hallett Cove, SA 5158 can offer help in: *Bastow Manor, Island of Spies, Cavern Adventure, Temple Curse, Murder of the Waterfront*.

Peter Georges of 34 Arundal Park Drive, St Clair, NSW 2759 has a collection of hints and tips printed in almost every magazine over the last five years (Amiga, C64, ST).

MS: *I have seen some of Peter's tips....and he has heaps. Peter is also an international clever contact for top UK magazine THE ONE for AMIGA.*

Also, David Stacey of 3 Tigree Drive, Hallett Cove, SA 5158 has maps for *Bards Tale 2, 3, Pool of Radiance*, as well as interesting hints and tips. David also has hints and tips for *The Story of the United Seas*, and is willing to give copies to those who write to him with a stamped addressed envelope.

Stop press: David has just sent me a huge list of all the games he can help in (not just adventures - even Nintendo Gameboy games!).

Always enclose a stamped addressed envelope when writing to a clever contact. (Donations wouldn't go astray either!)

Hot Adventure News

Infocom has come back from the dead! In the September issue, we told adventurers that "you aint seen nothing yet". Well, just when you thought that Infocom were dead and buried, everybody can now get excited over two exciting new releases.

First up is *Leather Goddesses of Phobos 2: The Gas Pump Girls*. This is a graphic adventure (also available on CDTV) featuring animation galore. The game is set in a small '50's American town terrorised by meteorites and an

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MIDI based music
on the Amiga?

Swap questions and answers with

Jim Harford,

28 Forest Court,

Yandina, 4561

Ph (074) 46 8362

alien invader. Only the military and a group of attractive gas pump girls can save the day! Written by Steve Meretsky. (Thanks to Stuart George of Springvale, Vic for that info).

The other hot Infocom release which is in the shops now is *Circuits Edge* - an adult murder mystery set in the 23rd century. The game boasts a substantial amount of graphics and character interaction. Both products are released under the Infocom/Activision label.

Stuart George also reports that Mastertronic in the UK have released the first ten Infocom classics at a ridiculous low price.

The Adventures of Willy Beamish is an exciting new game from Sierra featuring super cartoon animation. Ask for a demo now....you'll be amazed!

Distributed by Ozisoft for the Amiga, Amiga CDTV, and IBM.

(Editor's Note: Ozisoft only seem to be aware of the IBM version at this stage, with no news at all of a CDTV version!)

Sierra are about to release what could be the first Green game ever, with the imminent release of *Eco Quest*, an environmental adventure in which the player (12 year old Adam) and his pet dolphin battle the terrors of toxic wastes, oil spills, fish nets and a multitude of other frighteningly dangerous environment hazards. Distributed by Ozisoft.

Also from Ozisoft is *Space Quest IV* available this month for the Amiga. Also released is *Police Quest III*. Meanwhile, watch out for full reviews of

Kings Quest V, *Space Quest IV*, and *Leisure Suit Larry V* in future Realms. (Kamikaze Andy has reports of the new Larry adventure in his Dungeon).

Access Software have released a hot new mystery called *Martian Memorandum*. Advertised as a Multimedia Entertainment Product, and a real interactive mystery. Available in the stores now.

The Terminator and *Terminator II* are also two hot new adventure/arcade releases that should be tried out. Both feature fantastic 3D graphics.

Yes folks, with news of Infocom/Activision alive and well, and hot release of games from Sierra, the adventure market is more alive than it has ever been!

Problems, Problems & more Problems or the Troubled Adventurers Dept.

Letters have been pouring into the Realm the last couple of months, and I apologise for any delays. The demand for the Clever Contact hint sheet has been overwhelming, so please be patient and I try to replenish supplies.

The following adventurers would really love some answers to their many problems. If you can help, please write quickly!

Aaron Upcroft is stuck in *Shadows of Mordor*. Aaron writes...."In my time I have played many adventures, and I find that *The Shadows of Mordor* is the ugliest adventure game ever. I find it totally user-unfriendly!

"I have successfully built the raft in the right place (northern edge of river) and 'poled' the raft across to the southern edge. I find, however, that at one place with flickering points of light (which kills me) I am in exactly the same place as I was before I crossed the river! What do I do?"

MS: Aaron would also like to know

if Smeagol is of any use. He also adds that *POLERAFT* is the most ridiculous command he has ever encountered!

Stuart George, helper of many, but also stuck in many, needs help in some old Scott Adams games.

In *Fantastic Four*, he can't get THING out of the pit without drowning him or the human torch.

Then in *Buckaroo Banzai*, he cannot find the Bauxite to make jet fuel, and he doesn't know how to climb the mountain.

Finally, in *Sorcerer of Claymorgue Castle*, he has managed to get the towel from the moat and enter the castle, but what does he do next?

MS: Stuart doesn't believe in playing one game at a time - it's one form of masochistic self-torture!

Raymond Huntley is having trouble in *Eye of the Beholder*. He cannot get the ladder to Level 3 as the passage 3 squares to the north of ladder 1 is blocked. Any help would be greatly appreciated.

Tony Finn of Wagga Wagga in NSW is currently playing *Deja Vu II*. He cannot seem to win enough money at the casino to buy the \$20.00 train ticket to Chicago. He also cannot enter the laundry building (two goons shoot him when he uses the bin to enter!).

Another chap stuck in *Deja Vu II* is

Dale Priem of Jannali in NSW. He has got the secret letter from the vacuum cleaner, and has got into the city morgue, but doesn't know what to do next!

C. Wilson of Oatley in NSW is stuck in AD&D *Hillsfar*. Finding Dalma to give her the sword is this adventurers problem. Any takers?

D.C. Hoggard of Muswellbrook is having a nightmare playing *Personal Nightmare*, and that's not from the scary bits! How does he open the boot of the car in Peter Mason's garage? How does he get out of the Mason's house when Susan comes out in the mornings? How does he stay out of jail? How does he avoid being burnt by the acolytes (?), how does he get upstairs in the burnt out manor? And finally, how can he stay alive long enough to finish this game! A Personal Nightmare indeed!

Felicia Holmes is currently stuck in *The Jetsons*. She cannot find enough money to buy transport to go investigating on the planet. Also, in *Legend of the Sword II - The Final Battle*, Felicia cannot get the blue crystal and cannot enter the cave where unseen horrors come out at you.

Finally, Lisa Middleton of St Marys in NSW is stuck half way in *Asylum*. Any help in this very urgent problem would be appreciated!

The Dungeon

by
Kamikaze Andy

In the hot Australian summer there won't be much sense singing "Winter Wonderland" or "White Christmas", but the annual festive season brings great tidings to Amiga adventurers and role-players. So let the celebrations begin!

Leisure Suit Larry V

Leisure Suit Larry V: Passionate Patti Does A Little Undercover Work is due to be the next Sierra graphic adventure to hit the Amiga shelves, and let me tell you that the graphics totally outshine any previous Sierra products!

This time designer Al Lowe has opted for a more "cartoony" look (and feel!) for Larry, so don't expect any super-realistic close-up shots of gorgeous babes. The humour, while still mostly sexual in nature, is more subtle and "mature", if such a thing is possible. The music and sound effects are also outstanding. Experienced adventurers should be warned, though: *Larry V* is definitely a "beginner's level" product in terms of puzzles.

Sierra seems to have continued its recent trend of emphasizing on the graphics and sound rather than on puzzles or story, so if you're a seasoned adventurer you'll probably find the game quite easy to complete.

Fans of *Rise of the Dragon* (from Sierra affiliate Dynamix) will be pleased to know that another Blade Hunter adventure is due in a couple of months' time. Now that they've got the Amiga program engine all sorted out, games that use the "point and click" interface from both Sierra and Dynamix should appear at a more regular rate.

It's also reported that Sierra managed to get a 256 colour version of *King's Quest V* on the Amiga up and running, but opted to release the (very good, I must admit!) 32 colour version because the 256 colour version was simply too slow. Maybe *King's Quest VI* (and there WILL be another sequel, which is good or bad news depending on your tastes) will use HAM mode?

Mega Traveller

As mentioned last month, the Amiga conversion of *MegaTraveller 2* is making its way to the stores. Publishers Paragon are really cashing in on the RPG license, though, because *MegaTraveller 3* is due out in April! Details of the plot are sketchy at this stage, but fans of this RPG series will be kept up to date in future Dungeons. Paragon releases are distributed by MicroProse, and the long awaited DarkLands RPG (set in the Germanic Middle Ages) looks like being delayed further. The Amiga version will probably appear very late in 1992.

Sequels

It's sequel time, and leading the pack is *Starflight II* from Electronic Arts. The strength of the original *Starflight* lay in its varied gameplay (trading, exploring, combat), and *Starflight II* promises much more. You will travel through time, make contact and trade with more alien cultures, solve puzzles, and take a hyperspace jaunt or five along the way. Graphics have been upgraded from the

original, too. Worth checking out for the gameplay value alone.

Speaking of sequels, it's finally been confirmed that *Bard's Tale IV* will indeed appear sometime next year. It will be interesting to see how your party (elevated to God-like status after *Bard's Tale III*) is handled in the new game, which also promises 32 colour graphics.

For creative fans of the series who always wanted to design their own mazes, look out for the upcoming *Bard's Tale Construction Set* from Interplay. It features all the tricks and traps found in every *Bard's Tale* game, from the "teleporters" to the "spinners" to the "magic mouths". Not only that, Interplay has thrown in all the mazes from the original *Bard's Tale* game with the *Construction Set*!

CD Technology

Origin is one company that's pushing CD technology to the fore, and this may eventually translate over to the CDTV. Currently there are no plans to convert *Wing Commander II* to either Amiga or CDTV format, as the guys from Origin claim that the game is too advanced for the regular 8MHz Amiga chip. Until Commodore start putting in faster 68030s in regular Amigas, we may never see *Wing Commander II* or *Strike Commander* on the Amiga!!

Hopefully the Ultima series will continue though, and there's yet another derivative on the way. Titled *Ultima: The Underworlds*, it's a 3D Dungeon Master type RPG set in the infamous Stygian Abyss. As the Avatar, you've been banished to this hellhole for a crime you did not commit, and it's your job to explore the Abyss. Fans of the Ultima series might recognize the fact that the Avatar had in fact conquered the Stygian Abyss in *Ultima IV*!

When will Access Software's *Countdown* hit the stores, you cry? After a few delays, *Countdown* will eventually be released "very soon now". The coding of the game has been entrusted to the UK programming team that also did the previous Amiga versions of *Mean Streets* and *Crime Wave*.

After playing the former, I am confident that *Countdown* will be an adventure to remember. By the way, Access also has plans to bring out the sequel to *Mean Streets* late next year. It's called *Martian Memorandum*, and some of the digitized movements of characters in the game are nothing short of amazing. The Amiga conversion should contain a lot of speech as well. The plot of *Martian Memorandum* will bring back a few

memories from the movie *Total Recall* (ancient Martian civilization, lots of sleazy places to visit on the Red Planet, the role of the Martian Mutants, and so forth).

Oops! Last month I mentioned something about Free Spirit Software's newest Amiga release *The Abyss*, well it's NOT based on the Jim Cameron movie of the same name. Rather, it turned out to be a puzzle game! Free Spirit will be

continuing the adult adventures of Captain Brad Stallion, though, and another "Big Thruster" graphic adventure is due to be released very shortly.

Finally, to all hardy Adventurers and Role-Players out there, a merry merry Christmas and Happy New Year! Next month's Dungeon should have some news on the upcoming Consumer Electronic Show in Las Vegas (1992), so stay tuned!

Help, Help & more Help or the Smart Adventurers Dept.

Many thanks to all those adventurers who sent in hints for those very troubled adventures. Your prompt assistance is greatly appreciated.

Game: *Captive*

For: David McKinney
(October Issue)

From: Steve McKinlay, Doncaster,
Vic. and Peter Georges.

Help: David will not find the password for one of his doors because it happens to be stuck behind it!

There seems to be a bug in the game of Mission Two, The Third base (Phoepel).

A clipboard has been placed in the wrong area so you cannot get to it without opening the wall that it is supposed to open. The clipboard is of the type where lines are highlighted on a grid to open a nearby section of wall. The clipboard number is 15099.

Kill professors and guards, who will in turn drop codes for gates and wall opening.

Game: *Battletech*

For: Ray Huntley (October Issue)

From: Peter Georges and Stuart George.

Help: The cache can be found at map location 54,40 vertical, 41,20 horizontal.

Game: *It Came From The Desert I and II.*

For: Luke Morris (October Issue)
From: Peter Georges
Help: Part I: First collect a piece of an ant on day one from JD's farm.

Return home on day two and find Jackie.

Visit the scene of her crash and pick up some new creature fluid. Don't stay with her otherwise Dusty will get jealous.

Make frequent trips to the police station.

Footprints around the volcanic cones are more evidence. All evidence should be taken to Doc Wells at the lab.

To get rid of the Hellcats, drive at full speed in the middle of the road.

Finally, the queen ant's hideout in M1 near the mines.

Part II: Get the combo of the safe first. These numbers are gained by shooting off antennae from the people that have ant heads. The safe is in the morgue in the basement of the hospital.

When you get it, block the door with the wheel chair.

Once you have revealed the anthead's plot, go to the situation map in the police station. Place army and workmen at key areas such as the airport, town, north volcano and armoury.

On the 8th and 9th day, fly to the ant nest which is due north of the north volcano. Wait until the ants appear then spray them.

Land the plane on the road and walk to the nest.

Once you have found the queen ant, set the explosives and run back.

Game: *Bloodwych*

For: Mark Healy (October Issue)

From: Peter Georges

Help: In the maze, use the compass

spell. If you use it in the wrong places you will be spun around and you will lose your bearings.

Game: *Champions of Krynn*

For: Ray Huntley (October Issue)

From: Stuart George

Help: After you defeat Myrtani you have to defeat a few big red dragons. For this, you will need to give the Dragonlance to the best fighter and use the protection against the dragon breath on him. In the battle have this fighter approach the dragons and all the others run to the outer edges of the combat zone so that no dragons are visible. Casting HASTE on the party will help.

Games: *Runaway and*

Astrodus Affair

For: George Glover

From: David Lear

Help: *Runaway*: To get light on the subject, stand up, examine surfaces, feel walls and pull cord.

To know the time, examine furniture, examine bed, table, lamp, base and get watch. Enter TIME.

To escape the bedroom, examine rug and get short key. Examine shelving and get/unlock box, get large key. Examine south door/calendar/numbers. Unlock west door and go west into the store room. Examine chests and examine contents. Return to bedroom and unlock south door.

Astrodus Affair: To get started, examine door and more debris. Go east, east, north, get apple, north. Crawl under beam, examine carpet, move cabinet, enter hole, get card and exit hole. Return to bridge and insert card in slot. Get/examine manual. Go south to control room and press code to restore heating.

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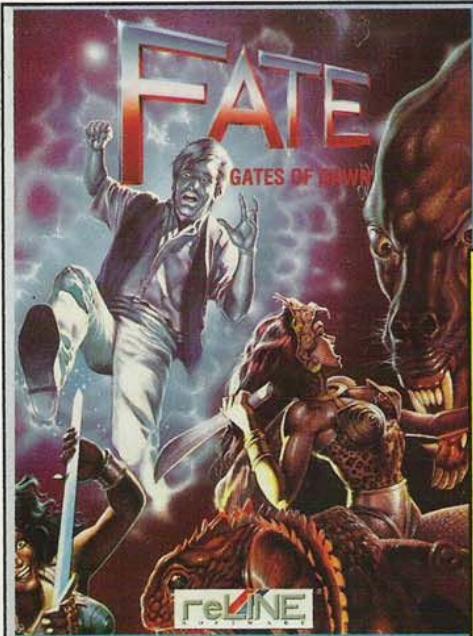


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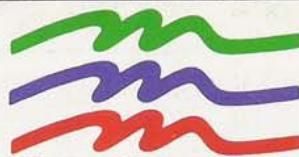
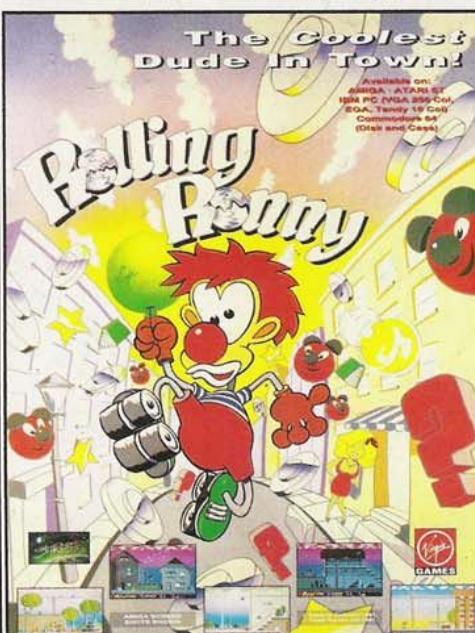


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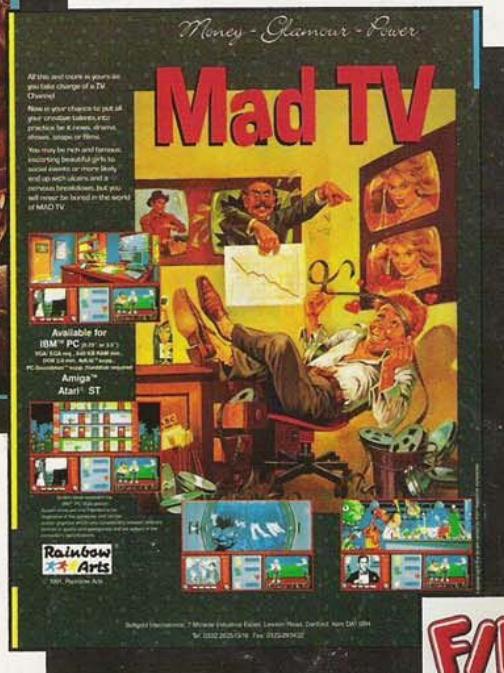
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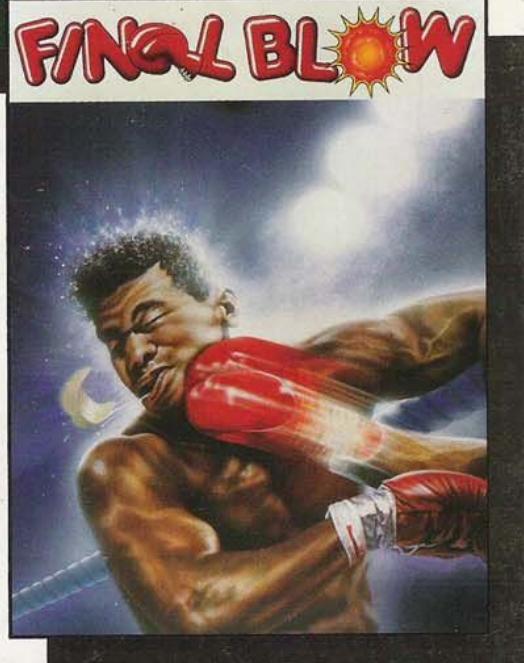
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